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THANKSGIVING NUMBER

"INDUSTRIAL EDUCATION"

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NOVEMBER, 1932

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EDITORIAL

Most phases of secondary education are being critically evaluated today. Because of the fact that it is usually expensive to operate courses in industrial-arts education, because of the present unemployment situation which brings into question procedures and plans in vocational education, and in some cases because of a lack of a well-defined program, industrial-arts education may be especially open to criticism. An attempt has been made in the series of articles in this number to face frankly some of the major questions in the field.

In his article Dr. Proffitt assumes "that the work carried on in the industrial arts furnishes opportunities for both direct and indirect forms of experiences" with "opportunities for participation in construction work of a manual and industrial character, and also for reading in the field of industrial production . . . that the shopwork includes practical types of projects which are in accordance with the interest and achievement levels of the age-grade group for whom a particular course is planned; that a body of related information of value for an intelligent understanding and appreciation of the types of construction work represented by the shop activities is included as a part of the instruction; and that the selective readings and observational visits in the field of industrial activities are so organized as to lead to general and specific industrial intelligence."

Accepting this program gives us a real platform for industrial arts in the public-

school system. Industrial arts have been oversold as furnishing a large part of the exploratory program of the junior high school. Industrial arts do have an outstanding place in connection with an exploratory program. On the other hand, every subject and every activity properly organized contributes in one way or another to "exploration." Granting the exploratory value of this subject, we must still look to other specific values to justify the program of industrial arts. Dr. Proffitt has outlined for us these values.

Industrial arts came to us by way of the Sloyd movement. This was followed by the development of real projects, which, even if they may not have had intrinsic value, really meant something to the pupils. Later the work in many schools degenerated into busy work. Thousands of necktie racks of precisely the same dimensions, long relegated to the attic, bear witness to this period. The general shop, with emphasis on individual projects of a varied nature, breathed new life into the work and boys found joy and satisfaction in working on and participating in projects which had values in themselves and which were not merely ends. Leaders in the field are now fighting against the possibility of too fixed courses of study with fixed blue prints and fixed time sheets which take from the course all the joy of initiating a project of one's own, carrying through something that is vital in school, community, or home life.

Dr. Whitney outlines the underlying phi-

losophy of a program of vocational education, pointing out changing conceptions made necessary by corresponding changes in industry and life. He also points out that industrial education must play a large part in the development of a social system which is largely industrial.

Many of the difficulties in the organization of the industrial program have come about because of a lack of understanding and appreciation on the part of both the industrialists and the generalists. Fortunately, both groups are coming to a better understanding of the real problems at hand. The rigidity with which the provisions of the National Vocational Education Act and the rules of the Federal Board for Vocational Education have been administered has not helped the situation much and has sometimes had the effect of bringing vocational education into question.

The appeal and the strength of the vocational-education forces are shown by the pressure brought to bear upon Congress, forestalling proposed cuts in aid for vocational education.

That there will be *more* rather than *less* vocational education seems certain. That changes in programs and policies will be made to meet changing conditions seems equally certain.

The National Vocational Act of 1917 was passed before the general advent of the junior high school. Since that time high-school enrollment has materially increased, trade conditions and opportunities have changed. These and other developments call for a reevaluation of what is offered in the name of individual arts and vocational education. In this reevaluation there can be no "special interests." Not "what has been done," but "what should be done" is the important question.

To the task of answering this question all forces interested in the education of youth need to be mustered. Coöperative thinking on the part of many groups is needed if a workable and effective plan is to result.

W. H. B.

CORRECTION

THE CLEARING HOUSE regrets that the name of Miss Mildred Crabb, vocational counselor at the David Worth Dennis Junior High School, Richmond, Indiana, was omitted from the heading of the article in the September number entitled "What Shall We Do with Sally?" Miss Crabb was author of the article with N. C. Heironimus, principal of the same school, and is serving in the school's mental-hygiene clinic, described in the article.

THE PLACE AND PURPOSE OF INDUSTRIAL ART IN OUR SYSTEM OF EDUCATION

MARIS M. PROFFITT

EDITOR'S NOTE: Dr. Maris M. Proffitt is educational consultant and specialist in guidance and industrial education for the United States Office of Education. His wide experience as teacher, principal, head of department, superintendent, and State supervisor, in addition to work in connection with the United States Veterans' Bureau and the United States Office of Education, has placed him in a position to observe developments in the field of education from many sides. This article clearly sets forth the place of industrial-arts education in the school system.

W. H. B.

THE topic assigned to me in this series of articles has been, during the past quarter of a century, a frequent subject for discussion both at educational meetings and in edu-

cational literature. However, the opinions expressed and the facts developed in such discussions have varied from time to time with changing assumptions relative to the

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aims of education and the media and methods to be used for the realization of the aims. For the purpose of this discussion it is assumed that the work carried on in the industrial arts furnishes opportunities for both direct and indirect forms of experiences; that is, opportunities for participation in construction work of a manual-industrial character and also for reading and observing in the field of industrial production. It is further assumed that the shopwork includes practical types of projects which are in accordance with the interest and achievement levels of the age-grade group for whom a particular course is planned; that a body of related information of value for an intelligent understanding and appreciation of the types of construction work represented by the shop activities is included as a part of the instruction; and that the selected readings and observational visits in the field of industrial activities are so organized as to lead to the development of general and specific industrial intelligence.

The basic question to the discussion of the subject of this paper is: How does the industrial-arts work contribute to the realization of the modern objectives of education? In order to answer the question it is necessary that we hold some common opinion as to these objectives. I believe that for the purpose of this discussion it is sufficient to assume that there is rather general assent to the assumption that education is for the purpose of making adjustments to life situations; that is, building up modifications that will best fit the individual for active participation in our social, civic, and economic life, and that it is the function of secondary education (including the junior-high-school grades) to provide for all persons of secondary-school age in our population instruction suitable for the realization of this aim in accordance with group differences. I think that there is also considerable unanimity of opinion that education should contribute to

such specific objectives as better home membership, citizenship, use of leisure time, and increased vocational efficiency.

Teachers of industrial arts have claimed that their subject contributes to all of these objectives; so have the teachers of English, Latin, and history. Those who have helped to define the field of the industrial arts, therefore, are not altogether free from some bad practices, relative to objectives, which have been followed by teachers of other subjects. Often we read or hear that industrial arts teach accuracy, neatness, thinking, reliability, coöperation, judgment, and many of the other human virtues. We sometimes find these included even in lists of objectives. A historical review of the values claimed for various other school subjects will reveal that they have long dealt in such generalities, based largely on the theory of the transfer of training or mental discipline. Latin and algebra years ago set the pace for claims to such objectives. No one will deny that to learn Latin one must think logically about the problems encountered, but to assume that Latin will teach one to think logically or that Latin requires more logical thought processes than other subjects is quite a different proposition. The same can be said with reference to such claims for the industrial arts; the statement is just as true for one as for the other.

The touchstone for the value of a curriculum subject as expressed in terms of objectives is not "Does it contribute to accepted educational aims?" but, "Does it make a unique contribution or a more effective contribution to some specific objective than can be made by any other subject in the curriculum of studies?" Industrial-arts teachers must look more definitely than they have in the past to a finer differentiation of objectives to which their subject can make an unusual contribution, and as a side statement this pronouncement holds just as true for other special subject teachers.

As educational programs are for the purpose of training in the arts and sciences of life, for adjustments to civilization, a logical and scientific attempt to determine curriculum objectives requires that such aims be considered with reference to: First, the human individual, his abilities and methods for making adjustments; and second, the nature and character of life situations to which adjustments are to be made.

The effort of this discussion will be devoted towards an attempt to establish the proposition that the industrial arts can make a special contribution to our educational aims, and in connection with this effort to set up some definite objectives for this curriculum subject.

Properly organized industrial-arts courses provide:

1. *A medium for self-expression.* It is very important that training for adjustment to civilized life includes opportunities for self-expression on the part of the individual, as these constitute experiences necessary for growth and development. Such experiences have sometimes been called developmental experiences. The individual, however, cannot express himself except through some form of medium. The materials of the industrial arts constitute one of the essential media for the learning process. Through design and construction in wood, wood-finishing, fiber and textile materials, metal work, electricity, drawing, and that great human institution, printing, the pupil finds opportunity for self-expression in a practical medium not utilized by other school subjects. The conception and laying out of projects on paper, the making out of bills for materials to be used in the projects, the getting out of stock, the performing of the necessary hand and machine operations on the materials, and the assembling of parts into a completed concrete expression of the original conception constitute a unique and valuable type of school experience for learning

through self-expression. Activities in the industrial arts are just as natural and vital a means of self-expression as are activities in reading, writing, mathematics, language, and music. Moreover, they are types of activities which appeal strongly to the young boy and girl.

Self-expression through the medium of concrete materials is as old as the human race. It is said that God created man in his own image from the dust of the earth; thus He used clay to express himself. Since that time man has expressed himself through the construction of practical-material articles for his convenience. The industrial arts provide a practical and natural medium for self-expression, resulting in a developmental type of experience. This is the special contribution of the industrial-arts work in the elementary grades, and one of its varying values in all other grades.

2. *A means for the discovery of aptitudes and interests.* Exploration through school subjects constitutes a means for the discovery of aptitudes and interests that has long been recognized as a fundamental contribution of education to the adjustments of the individual to his environment. However, opportunities for exploration through school subjects have been limited by the number and kinds of subjects included in the curriculum of studies. It is readily agreed that English, Latin, mathematics, geography, and science have exploratory values, but these do not deal in construction work with material things.

Some one has said, in effect, that the tendency to manipulate is a universal fundamental characteristic of the human race, and that in general people can be classified into three main groups; namely, those who like to manipulate material things; those who like to manipulate abstract symbols used in such activities as reading, writing, mathematics, language, and forms of abstract thinking; and those who like to manipulate

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other persons, to direct and to control the thoughts and actions of other people. Doubtless a greater percentage of the total time of more persons is devoted to the manipulation of material objects than is devoted to either one of the other activities. The United States Census shows that 28.9 per cent of gainfully employed workers ten years of age and over are employed in the manufacturing and mechanical industries. This is the largest percentage for any occupational group. In addition some of the other occupational divisions such as agriculture, extraction of minerals, and forestry require that a considerable amount of time be spent in the manipulation of material things. On the other hand, only 6.7 per cent of the gainful workers in our population is employed in professional service.

Moreover, childhood and youth are the special periods when interest in the manipulation of material things is at its height. The early development of hobbies involving mechanical and technical abilities, the building of model airplanes and boats, and the construction of play equipment are all valuable for exploratory purposes. The industrial arts constitute, with the exception of vocational-industrial work, the only courses offered for the specific purpose of training in construction work, using common construction materials and common tools and machines. Many of the boys who come into the industrial-arts courses may find that they have no interest or aptitude for such work. This of itself may have large significance from the standpoint of exploration. They will have had at least an opportunity for manipulation in a line of work which uses material things as a basis of operations. A negative reaction to such a common type of occupational activity may be almost as valuable as a positive one for exploration. Industrial-arts work emphasizing the exploratory objective should be a required subject for all boys somewhere in the junior-high-school grades. The general

shop type of organization is a very effective means for realizing this objective.

3. *Training valuable for the selection, use, and maintenance or construction of industrial products and services related to home life and leisure-time activities.* The industrial arts can make a special contribution to training for home life and leisure-time activities through the development of knowledge and of manual-industrial abilities of a practical unspecialized kind. Such training increases efficiency in the selection, use, operation, repair, and construction of industrial products and services used in the home, leisure time, and avocational activities. The increasing use of electrical and mechanical equipment and appliances, metal equipment, wood and metal finishing materials and equipment, house plans and mechanical drawings, concrete products for decorative use, art metal and leather work, the products of the printing industry, the automobile, and the radio, all point to a growing need for related technical knowledge and unspecialized elementary manual-industrial skills for user's values.

Ability for evaluating materials, types of construction, finish and workmanship in furniture is an important factor in worthy home membership and one for which training can best be provided in a specific unit in the industrial arts. The care and repair of furniture, kitchen utensils, and the various kinds of equipment for the home and yard represent unspecialized manual-industrial abilities having user's values. A general knowledge of the construction of the automobile, including the operation of its internal-combustion engine and its electric system, should be regarded as essential common knowledge. The ability to interpret simple architectural drawings is necessary for reading intelligently articles on home planning appearing in periodical literature having a general circulation. Abilities of a mechanical and technical nature are important for many avo-

cational activities, and their development should be emphasized in training for the proper use of leisure time. Certain units of the industrial-arts work in both the junior- and senior-high-school grades can be developed so as to contribute in a very effective way to the purposes listed under this heading.

4. *Opportunities for the development of general industrial intelligence.* Properly organized courses in the industrial arts contribute to the development of general industrial intelligence with respect to (a) general understanding of common basic operations in construction work and manufacturing processes; (b) knowledge of common machines and tools used in the mechanical and manufacturing industries; (c) knowledge of materials used in these industries; (d) knowledge of working and employment conditions in these industries; (e) knowledge of plant or company organization for production purposes.

The civilizations of various countries and of various ages have each been characterized by some predominant element. Whether it was art, literature, cathedral building, commerce, or law made little difference as to the emphasis it received as a culture; that is, a characteristic attainment of the people. Knowledge of the particular attainment was a recognized mark of culture and consequently an educational aim. This was true even though education was only of the informal type.

In our civilization some knowledge of mechanical principles, construction work, manufacturing processes, manufacturing materials, and commonly used industrial products and services is necessary for the interpretation of life about us. One who is without the knowledge to understand, in at least a general way, the work carried on in the factory, in the printing establishment, and in the mill which he passes daily, or the construction work he sees in his travels, or the

products of industry which he uses surely cannot lay claim to a full knowledge of his own civilization. General industrial intelligence is an important element in our cultural knowledge. The ability to converse intelligently with others about our industries, their work, and their products is a mark of present-day culture.

Shopwork, shop-related information, assigned readings, and visits to industrial plants all constitute a specific means for acquiring knowledge of industrial production, industrial occupational life, and the problems of industry. These values should be emphasized in the industrial-arts work offered in the senior high school.

5. *A means and a content of instruction for certain high-school pupils, for general education objectives.* For that group of pupils for whom vocational-industrial courses in skilled trades and mechanical lines of work and college-preparatory courses are neither feasible nor possible, proper and adequate courses in the industrial arts constitute an effective means of instruction for general employability in ordinary work jobs in the industries. In our present heterogeneous high-school student body there is a considerable percentage of pupils who are not qualified for carrying successfully the regular academic courses meeting college-entrance requirements and who are also unable to profit sufficiently by training in a skilled trade or technical field of work. The tendency to make the entrance requirements of the four-year industrial high schools the same as those of the academic high schools, namely, graduation from the elementary school, recognizes the fact that one of the conditions for success in a skilled trade or technical subject requires the possession of a degree of ability equivalent to that necessary for mastering academic high-school subjects.

Pupils not manifesting such ability may profit from shopwork organized specifically

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to meet the needs of such a group. It will constitute a concrete method of instruction for realizing general educational objectives by the close correlation of arithmetic, reading, drawing, and general science facts with the shop projects. Moreover, practice in observing work habits and in the use of common tools and in materials used in the construction of simple projects is valuable for increasing the employability of such pupils in unskilled work in the industries.

The types of industrial-arts work coming under this heading represented especially organized courses for classes below high-school rank.

6. *General industrial shop and general technical courses of high-school grade contributing to employability and to requirements for specifically industrial and technical courses.* General industrial shop courses giving instruction in two or more shop activ-

ities and also general technical courses, both offered in the high-school grades, when specifically organized for the purpose contribute to (a) abilities important for obtaining initial employment in positions in industry that may lead to skilled work; (b) abilities for making adaptations after employment to changing occupational requirements in an industry; and (c) abilities representing propaedeutic values for specifically industrial and technical courses.

The services which the industrial arts can render to the aims of education, as here indicated, represent functioning objectives and not specific courses. The six contributions listed are meant to include collective values for all industrial-arts work. For some courses there will be considerable overlapping of objectives, for others the aim will be primarily the realization of one definite objective.

TRENDS AND DEVELOPMENTS IN INDUSTRIAL-ARTS EDUCATION

ELMER W. CHRISTY

EDITOR'S NOTE: *Elmer W. Christy is director of the department of industrial arts of the Cincinnati public schools. He has been active in developing a constructive program of industrial arts. In addition to his work in Cincinnati, Mr. Christy has also taught college classes in the theory and practice of industrial arts. This article discusses trends in industrial arts as a part of general education and as contributing to the preengineering work of technical high schools and junior colleges.*

W. H. B.

FIFTY YEARS is a small portion of the time during which our present educational program has been evolved, but practically the whole development of what we call industrial arts has taken place in little more than the last half century. It is, therefore, one of the newer school subjects, although in actual life its equivalent in more primitive form dates back even farther than most other school subjects, for it has been largely through the manipulation and control of his physical environment that man has recorded his progress in civilization.

In actual practice we have come to con-

sider industrial arts as a school subject including a great variety of manipulative and construction work presented for its educational value in a program extending from the kindergarten through senior high school and even into junior college. That it has grown so rapidly is really remarkable, particularly when we consider that no federal subsidy or other similar stimulus accounts for its acceptance in one form or other in almost every school system in the country.

Industrial arts like most other large units of activity has had many definitions, but pri-

marily it is concerned with manipulative changes in materials to serve better the needs of those who use them. It involves the use of a great variety of materials, tools, and machines, and includes both design and decoration. It functions best when it meets a definite need, even an individual need; therefore, its program should always be a flexible one.

In observing trends we may well begin with the primary grades where the modern activity program provides opportunity for a large number of experiences in the handling of materials. To some children this provides their best medium of expression, and enables them to show progress and understanding in advance of their ability to read and write. That the products are sometimes crude is no reason for being concerned as long as they function in the situation which has prompted their construction. Many shop teachers, however, having in mind the difficulty of securing good work from some older boys, have been astonished by the ingenuity, resourcefulness, and even the skill displayed by some of the younger children, even in the first grade. Since the classroom teachers in these lower grades have seldom had extended training in the use of tools, the results provide a lesson to those shop teachers who are inclined to teach their subject in a formal and sometimes uninteresting way. It indicates to them the value of recognizing the personal interests of individual pupils as elementary teachers do in their activity plan of teaching. We are apt to underestimate the ability of boys when they are really interested enough in a project to want to build it up to a high standard.

The upper elementary grades, that is the fourth, fifth, and sixth, have proved to be the most vulnerable portion of the industrial-arts program, judging by the curtailments which have been made. It has been customary in many schools to send fifth-

and sixth-grade boys to a special teacher in a special shop for their industrial-arts work instead of carrying it on in the classroom. With the organization of junior high schools with their increased emphasis on industrial arts in the seventh, eighth, and ninth grades, some administrators have abandoned the shopwork of the fifth and sixth grades for a program involving some construction work in the classroom closely correlated with the other classroom work. While this type of program often proves to be valuable, it more often fails to recognize the boys' own point of view. Based on observation one is inclined to say that in so far as interest is a criterion, fifth- and sixth-grade boys should have an opportunity to work in a real shop, with real tools, and with a teacher in charge who knows the proper methods to pursue and the possibility of using such a situation to the best educational advantage of the pupils who report to him. Some elementary schools have provided a shop to be used by all grades—at least by those pupils who are involved in some construction problem which cannot be so advantageously undertaken in the classroom. In charge of this shop they have a versatile teacher who finds her program in the construction problems which are brought to the shop by pupils as part of their classroom assignments. This seems to be almost an ideal situation if we recognize and provide for the fact that there comes a time when boys develop an interest in making projects quite unrelated to their classroom work, and often representing a variety of interests. It may be some time before many elementary schools can afford a shop program of this kind, but the real problem of industrial-arts experiences for boys of the fourth, fifth, and sixth grades will not have been solved until they are provided ample opportunity to give free expression to their interests in construction problems, which interpret to them the en-

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environment in which they spend more hours than they do in school.

In recent years industrial arts has found its most cordial welcome in the junior-high-school field. It is quite generally considered an essential factor in a junior-high-school curriculum. In this field it has been presented in a great variety of forms, but the most common divisions of subject matter are centered around woodwork, metal work, printing, electricity, and mechanical drawing. When presented in a comprehensive way, this type of organization does involve boys in a large number of experiences drawn from industry, thus providing an important link in their exploratory program. While the vocational-training value of industrial arts is seldom stressed in junior high school, it often does contribute materially to a boy's success in the vocation which he later chooses.

While industrial arts is almost universally offered in junior high school, the amount of time devoted to the subject varies considerably. In some cases no more than ninety minutes per week in the seventh and eighth grades is allowed with additional time elective in the ninth grade. A more common arrangement is to devote sixty minutes per day in the seventh and eighth grades with less or additional time elective in the ninth grade, according to the particular curriculum selected. In some cases the ninth grade provides opportunity for specific vocational training for half of each school day. Because of this variation in the time element, it has been quite difficult to agree on the kind and quantity of the subject matter to be presented. A committee of the industrial-arts section of the American Vocational Association is at work on this problem, and has made considerable progress in the direction of establishing minimum essentials of industrial arts for junior-high-school grades.

In senior high school the problem is

somewhat more involved. In most cases these high schools follow substantially the same program that was established more than thirty years ago, whereby ninety minutes of shopwork per school day represents a unit of high-school credit in each year's work. Shopwork of this type is quite generally accepted for college entrance credit, and is offered as a part of general education rather than as vocational training. Parallel to this general education type of shopwork, we have had for many years technical high schools where vocational training as well as preengineering or junior engineering courses have been featured. Finally there has been the development of specific trade schools, operating under the Federal Board for Vocational Education. Here we have three distinct types of school work involving the use of shops, and all occurring in the secondary-school period following the eighth grade.

For the purpose of this article we shall confine our consideration to the industrial arts as a part of general education, and to the preengineering of technical high schools and junior colleges. In the early days of high-school industrial arts the programs throughout the country quite uniformly offered cabinetmaking, wood-turning, pattern-making, foundry practice, forging, and machine shopwork, together with mechanical and architectural drawing. Wood-turning and forging as unit subjects have almost completely disappeared, except as they occur in projects requiring them, and have been replaced by sheet-metal work, oxy-acetylene welding, electricity, and printing. It is easy to see why these new subjects have been introduced to correspond with changing industrial conditions, but the very fact that changes have been made indicates an unusual alertness on the part of those persons who are responsible for maintaining an up-to-date curriculum.

The senior-high-school organization has

felt the competition of the junior high school, which, by anticipating by two or three years the shop program to which boys had been accustomed to look forward, has satisfied somewhat their curiosity without having penetrated much below the surface of real shop experiences. Specific trade schools have also attracted many persons who formerly would have attended high school but who prefer a shorter and more direct route into industry and wage earning. The situation is a challenge to senior high schools.

A study of industry as a whole indicates that between the journeyman mechanic and the graduate engineer there are needs for different levels of training and education. This suggests a field of activity for senior high schools, for which the increasing requirements of industry should create a wholesome demand. Detroit, Michigan, has been experimenting in her high schools with such an organization with promising results. The junior-college movement is another response to the same type of demand on a higher level.

Manual training, the forerunner of industrial arts, came into general acceptance when formal education was at its height, and although it had in it inherent qualities for enriching the educational program of the individual, many teachers accepted the prevailing attitude of general education to such an extent that shopwork became a mere disciplinary experience for the acquisition of tool skill.

In recent educational literature much has been written about a new type of shop organization which has been termed the general or diversified-activity shop. To the writer this represents a protest against the formalism of manual training and supports the idea that industrial arts should provide an enriched activity program in recognition of individual differences of pupils and their immediate as well as their future needs. In

support of this position we may consider two quotations, one from Dr. John Dewey and the other from Dr. Frederick Bonser.

When the entire emphasis falls upon the manual or physical side, occupational activity in school is reduced to a mere routine or custom, and its educational value is lost. This is the inevitable tendency wherever, in manual training for instance, the mastery of certain tools, or the production of certain objects, is made the primary end, and the child is not given, whenever possible, intellectual responsibility for selecting the materials and instruments that are most fit, and given an opportunity to think out his own errors, and find out how to correct them—that is, of course, within the range of his capacities.¹

Investigation of the courses proposed and taught in our schools leads one to note these prominent inadequacies in manual training: want of relationship of the work to life—the sequence of the models was in terms of tool processes. Failure to provide for the individuality of the child—each must conform to the system. Lack of motivation—the work was all prescribed in a fixed course. Placing the emphasis upon the product as the objective, rather than upon the growth of the child.²

Here we find expression of a philosophy which would elevate industrial arts above the mere forming of tool skills and use its interesting and varied experiences as a means of developing understanding, appreciation, and competence in the complicated industrial environment in which our pupils live. Stimulated by such writers as Dr. Dewey and Dr. Bonser, many shop teachers of fifth, sixth, seventh, and eighth grades undertook to enrich what had previously been almost exclusively a woodwork program. In Cincinnati we adopted a course of study based on boys' immediate interests and needs with the result that in our various schools a great variety of work is going on, involving the use of a large number of materials. Since many of the proc-

¹ John Dewey, *School and Society* (Chicago: The University of Chicago Press, 1915), p. 132.

² Frederick G. Bonser, *Industrial Arts for Elementary Schools* (New York: The Macmillan Company, 1923), p. 479.

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esses involved in these new experiences were drawn from industry we changed the name from manual training to industrial arts. Other teachers with the same purpose have emphasized household-mechanics or home-mechanics courses to include those things which a boy might do in keeping the many devices in his home in good working order.

The general or diversified-activity shop, which is an outgrowth of the recognition of the inadequacy of woodwork, has much greater significance than the mere introduction of home mechanics with which it is sometimes confused. The latter may be a part of the work in a general shop, but does not provide a sufficient variety of experiences to justify a prolonged program.

The general shop develops most naturally in the school employing only one shop teacher, and involves him in a complicated problem which requires unusual ability to organize. That such teachers do exist is indicated by the number of general shops which are being successfully operated. That more teachers can be trained is the belief of those whose responsibility it is to prepare teachers to meet the needs of the schools. That some disappointing experiences will be recorded is to be expected, but out of this awakened interest in the value of industrial experiences and the solution of construction problems through actual manipulation of materials, there is sure to come an enriched program more closely related to the contemporary life of our adolescent youth.

In schools employing more than one shop teacher the unit shop organization prevails and will probably continue to do so. In such

schools the general shop is being introduced to some extent as a vestibule or introductory experience before undertaking the work in unit shops. A much broader study of this problem is exemplified by the laboratory of industries of Ohio State University of Columbus, Ohio, where an elaborate and comprehensive program of teacher training is being conducted in connection with their new experimental high school.

In summarizing we would note the rapid growth of the manual-training and industrial-arts movement, the use of tools and materials in the primary grades as part of a problem-solving type of teaching, the inadequate solution of the fourth-, fifth-, and sixth-grade situation when boys are deprived of actual shop experiences, the expansion of industrial-arts opportunities in junior high schools, and the changing types of industrial arts in senior high schools, due to the development of trade schools and recognition of different levels of achievement as needs of industry. In method and organization we note that we are in the midst of great changes based on a recognition of the immediate and varied interests of youth in a complicated environment. One solution which has been offered is the general shop. That it has already made a fine contribution, especially in smaller schools, is apparent; that it will influence the practices of larger schools seems certain. In the midst of such rapidly changing situations industrial-arts teachers will do well to keep in touch with some of the outstanding experiments and also study their own situations to make sure that they are keeping abreast of the times.

THE PLACE OF VOCATIONAL EDUCATION

G. D. WHITNEY

EDITOR'S NOTE: Dr. Whitney is director of vocational teacher training in the University of Pittsburgh. He has served successfully as teacher and supervisor of industrial education in the elementary, junior, and senior high schools, and as director of vocational education in a city school system, and as supervisor of industrial education in the Pennsylvania Department of Public Instruction. In this article Dr. Whitney raises some important questions with reference to the place of vocational education in the public-school system, and outlines a platform which will be of interest to all interested in vocational education.

W. H. B.

THE term "vocational education" is known in several connotations with quite as many interpretations as to its characteristics. By some persons, this form of learning is regarded as a rich formative experience with implications running the gamut of the Seven Cardinal Principles. By others, it is held to be a short-cut, bread-and-butter device to launch immature youth, all too soon, into the maw of the devastating industrial monster. For present uses, it will be defined as preparation for a gainful occupation in a public school or through some form of combination between school and a job. As such, it is worth while to consider the time and place for such instruction in a school system.

First, let us consider an all too frequently held notion of the meaning of public-school education. It is probably not too drastic to state that there is still some passive adherence to the doctrine of formal discipline, even while giving lip service to the vitalizing philosophy of John Dewey. There may still be seen a tendency to focus educational effort on the requirements of adults with the novitiate, comprising experiences of penance and discipline, thus learning for the tomorrow by a conditioning process which must be severe to be beneficial. It is still an all too frequent notion that schooling must not be too practical, else the well-rounded, general development of youth may become warped. Also, generalization based on the race heritage is regarded as a sufficient goal, while efficiency demands that we be brief and to the point in handing it

on to newer generations. The social development of learners is held to be no part of the curriculum, although it is not always neglected but is referred to as extracurricular activity to be practised in such spare time as may be subtracted from the solid school program.

May it be said, however, that many school officials have broken away from that tradition, typified by the three R's and the concert recitation, and have had the vision and courage to fight the appeal of tax revisionists to eschew fads and return to what is loosely described as the fundamentals. Certain it is that education, if it is to envision an evolving program, should provide a place for the boy who desires some specific training for favorable entrance into the world of work. If, however, enough persons insist that we have a static educational program, built on the alleged needs of the mythical average pupil, vocational education can make no contribution. Let us assume for present purposes that public-school education will provide the opportunity for each boy and girl to learn in an accessible school those things which shall best equip the individual for a life of usefulness and happiness; that ample opportunity shall be offered for the proper guidance of youth, beginning with general development and going on through special skills of an intensive nature. Such a concept will surely include many forms of vocational education.

Legislation of a State and national scope has fixed vocational preparation as a proper

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activity of the school. In these days of financial difficulty there must, of course, be a close scrutiny of the proper scope of tax-supported institutions and it is inevitable that all of the taxing units, including local, State, and national, should each look to the other for additional support or, in the lack thereof, for an excuse for diminishing the program. If we should attempt to discuss this problem as a whole, it would go beyond the purpose of this paper. Suffice to state that taxes on real estate must be relieved and augmented by other forms of levies on less tangibles. At the present time, relief to local real estate is coming from State and national funds for the support of vocational classes. This principle may be found to be the next best step for all public education.

In a school system based on elementary and secondary stages, there seems to be no room for argument about the proper place for vocational teaching. It is definitely appropriate for the latter period. However, since the secondary period often contains junior and senior high schools, it should be stated further that most forms of occupational training belong in the more advanced grades. The only laws that specify the time of entrance into vocational preparation give fourteen years as the minimum age. As children tend to remain in school longer, due to economic conditions and a better social outlook, the age of specialization should be raised to a minimum of sixteen years. Some authorities would be willing to place it even later in the school life of the pupil.

This proposed postponement of entrance into vocational curricula raises some troublesome questions which will probably never be solved until we remake the school program to care for pupils through a year or two more of general education. No one, not even the educational "standpatter," would have the temerity to suggest that drastic changes can be avoided in the interest of that large group of normal drop-outs

who find no joy of accomplishment in the customary schoolwork, regardless of how well such work may be adapted to a minority of boys and girls with special gifts. Merely adding to the present structure in kind might conceivably mean to extend the pupil's sentence of involuntary servitude with the likelihood of harm from internal smoldering. Life activities, involving among other things a richer utilization of the practical arts, seem to be clearly demanded in any expansion of the general educational scheme, and we may find that social and recreational activities will move into the curriculum and cease to be "extra." In short, the passive resistance of those who still condone a formal disciplinary régime based on liberal-arts subjects will have to be overcome and reshaped to permit, on the one hand, a broader sweep of interests and activities for the individual and, on the other, social activities for the group built on present-day human needs.

The junior high school depends on the practical arts as a vital organ. This is generally recognized and legal restrictions are sometimes imposed which make the inclusion of such activities necessary to the attainment of the status of a standard junior high school. However, much loose thinking and interchangeability is present in the use of the terms "practical arts" and "vocational education" and it seems best to clear this confusion in the interest of this discussion.

As the writer sees it, practical-arts work is a part of unspecialized general education. It is for all boys and girls and has a function no more significant, vocationally, than that of geography. It forms a group of incidental activities in a general curriculum. There are involved experiences in home-making, agriculture, industry, and commerce which are short but revealing. Not enough time is usually available for the development of skills based on much repetition

in these fields. Practical-arts work in a junior high school helps towards the realization of the exploratory and self-discovery aim. In contrast to vocational teaching, it may be thought of as impressionistic rather than specific.

On the other hand, the pupil who has embarked upon the project of learning a trade, gainful occupation in the home, on the farm, or in commerce, makes of such occupation a center for his curriculum. In fact, vocational education is concerned with a selected individual of some maturity who has come up through general education and has arrived at the time when it seems desirable to bend all effort towards the attainment of the skills, technical knowledge, and civic outlook required by adult practitioners of that particular occupation. Since the vocation proper is a combined matter of hand and head, a well-rounded curriculum comprehending these elements should be employed. Therefore, mathematics, science, drawing, theory, and hygiene must be learned with specific concern for that particular occupation which the pupil purposes to master. The content of these subjects varies with the trade and is gleaned from a trade analysis. For example, the trade mathematics required by a carpenter is quite different from that which would be of most use to the machinist. Such vocational work is for the senior high school or special vocational school. Practical-arts work is for the junior high school mainly and precedes, but does not compete with, vocational work.

This discussion does not attempt to do full duty to the details of practical-arts work but devotes itself to the vocational field and, in turn, attempts to indicate something of the place of all-day unit tradework, general industrial, and the various kinds of part-time and trade extension programs.

In discussing vocational education as a part of the public-school system, there is

always a question as to where and when it should be provided. Authorities do not agree as to those exact characteristics of a school district which, when present, may be taken as indicators that the district should install vocational work. One obvious factor is size of the school district. In Pennsylvania there are instances of rather flourishing vocational departments in high schools of cities containing fewer than 20,000 inhabitants. A survey should usually be made to determine certain other important factors; *i.e.*, the pertinency of an occupation from the standpoint of numbers employed within a reasonable commuting radius, the ability of the district to establish and maintain such work, the degree of interest and spirit of coöperation evinced by local business concerns and civic leaders, the adequacy and accessibility of near-by school programs which may accept pupils on a tuition basis, and the possibility of forming a joint district for conducting a larger and more important vocational unit.

Then there is the shifting industrial scene to be considered. Will certain occupations become obsolete in the near future and render training along those lines of small, if not negative value? This brings up a tempting prospect that there may be discovered a group of vocational specialties which are basic and which are of somewhat general application, thus avoiding the hazard of futile preparation for work which the world has ceased to need. If it is postulated that there exist such basic trades, one might feel safe in saying that they would be concerned with such things as electricity, the graphic arts, production of machinery, building, and the like. Right here the thought arises that the older manual-training curricula in high schools sought to attain exactly this end and that such programs have either disappeared or ceased to increase, numerically, in competition with government-aided vocational schools. It is generally held that the virtues

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of adaptability, such as were sought by the manual-training approach, cannot be realized if any worth-while mastery of a particular vocation is sought as a major outcome. There is here a seeming conflict, such as is seen when a pupil attempts to master a significant amount of some vocation and at the same time prepare to enter a standard institution of higher learning. It seems to be fairly certain that a vocational curriculum will lose its essential vitality if it must conform to the usual college entrance requirements. It still remains to be demonstrated that secondary vocational training can be at the same time general enough to be safe and specific enough to be vocationally significant.

One might explore the subject of proper guidance of pupils who finally select a particular field of specialization; but it is sufficient to say, in passing, that the matter of selection is vital not only from the standpoint of safeguarding against wasted time for the pupil, but in cost to the school district as well. It usually costs more to maintain a boy in a trade curriculum, and surely efficiency demands that such expenditures be made wisely.

In the industrial field there are the following types of vocational programs: The day-unit trade school or department; the general industrial school; the part-time apprentice school; the part-time coöperative school; the evening trade extension school; the continuation school; and various forms of adult classes. These may be divided into two groups by selecting those which are easily classified as part of existing secondary schools, and then listing separately those which do not normally fall into such a classification.

The regular school may include: day-unit trade schools and departments; the general industrial school or department; the part-time coöperative department. Special schools will usually be required to care for evening

trade extension work, part-time apprentice work, and adult classes, although variations from this plan may be found. The continuation school is usually a separate unit, but by law it is a day school.

Day-unit trade vocational classes are found in special departments of cosmopolitan high schools in nine cases out of ten in Pennsylvania, rather than in special vocational schools. This practice is dictated partly by a general desire to place a variety of opportunities within reach of high-school pupils but is rendered practically necessary due to the size and scattered nature of the clientele of vocational curricula. An apparently useful suggestion is gaining acceptance that there should be fewer and better vocational schools for the less frequent trades. Even so, many high schools will probably retain departments for those more important fields mentioned earlier as possibly basic. Thus two or three schools of plumbing might serve a large area, while every large school might offer vocational electrical courses. However, few school districts should attempt to develop vocational industrial programs of breadth, unless there is a resident or commuting population of 25,000. These few exceptions will be found in highly industrialized centers.

Rural community vocational schools have in many cases solved the problem as it pertains to agriculture and home economics by their joint sponsorship of centralized schools. The industrial schools may well make use of this type of organization. In the highly industrialized part of western Pennsylvania, there are small contiguous districts each of which is conducting a separate vocational-industrial program. All agree that a joint effort on behalf of some larger unit would be more reasonable and more easily financed. Legislative encouragement is needed for the formation of this type of organization.

The general industrial school or depart-

ment is found less frequently than its close counterpart, which involves unit trade work. In its name, the word *general* has been regarded as in conflict with mastery. Whereas the unit trade idea involves but one specialty, such as the machinist trade, the general industrial idea provides that several trades be taught at the same time. As before mentioned, this idea of versatility or adaptability seems to be out of harmony with mastery of any one vocation. The old saying of "jack of all trades but master of none" expresses the essence of the usual objections to the general industrial school as vocational preparation. In school systems of less than 25,000 inhabitants, this type of work is sometimes offered and is permitted under the State and federal vocational education laws. The reader will, perhaps, see a close parallel between the general industrial program and the similar activities of the older manual-training high-school program.

Part-time coöperative work is, in many respects, ideal for teaching trades. The combination of instruction and practice on a real job seems to afford a natural learning situation. The administrative difficulties which abound in handling such work have hampered its widespread acceptance. In Pennsylvania there are as many as four day-trade programs for every one of the part-time coöperative sort. A few limiting factors in establishing and maintaining coöperative work are: difficulty of selecting and pairing suitable pupils for the one job on which they work alternately, difficulty in securing sympathetic understanding on the part of foremen in plants, the seasonal nature of many employments, and the control of size of classes in the different shifts and trades. Too small a group of coöperative pupils makes the unit cost of instruction high. Theoretically, the unit cost should be but half that for a student who spends all rather than half time in school.

It must be remembered, however, that special classes are required for the coöperative group because of their periodic absences from school. When this process of alternating school and a job is under proper control of a competent coördinating teacher, there is no plan more capable of success in trade instruction.

Excellent results may be secured in part-time apprentice instruction where the school supplements and takes care of interpretations of the intricacies of the job. In both part-time apprentice training and the part-time coöperative work just mentioned, there is an energizing *learn while you earn* element. From four to eight hours a week devoted to classroom work has been found desirable for apprentices in many trades. This work can be carried on in a high-school building or elsewhere. Since it is of a special nature, it is frequently supervised by some person other than the high-school principal, although this practice may vary with circumstances. In the city of Pittsburgh, most of these classes are held in separate trade schools or, as in the case of plumbing, in part of an older elementary school. The reason why location with reference to shop equipment is of small importance lies in the fact that part-time apprentice instruction is devoted to theory and understanding rather than to shopwork.

Evening trade extension work, which is well illustrated by a group of carpenters who wish to attend school to learn more about the steel square, is, again, rather special in nature and may or may not be a part of a high-school program. In any case, such work may well be given some special supervision. The age of those attending will often average 30 to 35 years. In our present-day conception of public education, it is significant to note that there seems to be no upper limit in the matter of age beyond which education ceases to be free. The philosophical thinking behind this general avail-

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ability of free instruction is of much interest in considering the whole present topic.

The continuation school is one of our most hopeful institutions. It is, of course, true that periods of depression affect enrollment and rightly so for those under sixteen years of age who ought to be in regular daily attendance in other schools. The great need for such schools is to keep under public advice and control the young wage earner. It is important to make youth's entrance into the world's work-a-day life an educational experience and not just sheer labor. Indications abound that the compulsory age for school attendance will soon be raised rather generally, with the result that continuation schools will increase in size and importance. In most cases, such schools exist as separate units due to a number of reasons, prominent among which is the fact that the attendance pattern varies in disturbing fashion from that upon which the full-time school is organized. Also, the basic approach to continuation-school teaching is different.

Adult classes have been preponderantly of a vocational nature. Many argue that in the day ahead, with its new-found leisure, people will turn to education for culture, but at least for the present most adults who attend evening school seem to be impelled by the motive of vocational betterment. A difference between evening trade extension work and the whole field of adult education is mainly that the former is restricted to persons already in a trade who desire to augment their knowledge of that trade. The study which grown-ups may undertake under public control is broad enough to include learning English for the new arrival to our shores and learning carpentry or entomology for others. High schools may well open their doors for evening classes which will induce in our citizens greater accomplishments on the job and in the cul-

tural aspects of daily living. As soon as we break away from our archaic taxation system and gear up its machinery to exact support from that large part of our wealth which takes other forms than real estate, we will be able to encourage grown-ups to come to public school throughout practically their entire lives.

In conclusion, let us state that vocational education has a place in the school system. Its function is to follow and to supplement general education. Many persons over fourteen years of age undoubtedly benefit from such instruction. No set form should be followed in providing vocational education on the secondary level, but opportunities should be given for the pupils in school to elect preliminary occupational training, as well as for older persons to get additional instruction to help them in their regular jobs. The plan of State and federal aid for vocational education has the virtue of being paid from sources other than the already overburdened real-estate levy for school purposes. When our whole taxation system shall have been reshaped, it may be that this federal participation may be changed; but until that time any half measures, such as relinquishing federal appropriations, would only aggravate the financial situation by loading such abated amounts on State and local taxes. A revitalized school program must include, for all of our youth, more of the avocational and leisure-time activities found in practical-arts work. Finally, the American ideal of equalization of educational opportunity for all through free public schools gives vocational education a place which many believe it occupies with credit. This form of education, being based on an analysis of industrial needs, will keep pace with changes in our ways of producing goods. Such a dynamic influence on our school system can be of inestimable benefit in the future, as it has proved to be in the past.

VOCATIONAL INDUSTRIAL EDUCATION IN PRACTICE

P. L. CRESSMAN

EDITOR'S NOTE: *Mr. Cressman is assistant director, Industrial and Continuation Schools, in the Pennsylvania Department of Public Instruction. He has grown up with the program of industrial arts and vocational education in Pennsylvania, starting his work as an industrial-arts teacher. He is particularly interested in promoting clubwork in connection with the industrial-arts program and is working on a national organization of junior mechanics clubs.*

W. H. B.

THE Centennial in Philadelphia in 1876 is generally recognized as the time when industrial education was introduced in the public schools of America. The Russian exhibits of apprenticeship work awakened the progressive-thinking schoolmen of America to a new sense of the possibilities of this type of education.

Manual training, the industrial arts in the high schools, and the technical high schools came into prominence by 1900. These were forerunners of vocational industrial education.

This article deals with vocational industrial education as it is defined in the National Vocational Education Act and not with industrial-arts education in the junior and senior high schools.

Wisconsin, in 1911, was the first State to pass a vocational-education law. This was followed by the enactment of vocational laws in Pennsylvania and Massachusetts in 1913. Other States followed their example in the enactment of vocational legislation. Thus the demand for vocational education was expressed by State legislatures before the National Vocational Education Act was passed by Congress in 1917.

There has been a steady and consistent increase in the enrollment in all phases of vocational education as provided under the National Vocational Education Act until last year there was a total enrollment of 1,125,000 students, distributed in evening, part-time, and all-day schools. Every State is conducting some form of vocational education under the provisions of the National Vocational Education Act. The territory of Hawaii has also secured the benefits of this

Act and is now conducting vocational schools.

TYPES OF SERVICES RENDERED

In the acceptance of the National Act, all of the States provide for vocational education in its varied forms of less than college grade. The general fields covered are: agriculture, home economics, trade and industrial, commercial, rehabilitation.

TRADE AND INDUSTRIAL EDUCATION

As stated before, this article deals primarily with trade and industrial education. Trade and industrial schools of a vocational character are generally classified as follows:

1. Evening industrial schools or classes
2. Part-time schools or classes
 - a) Trade extension part-time schools or classes
 - b) Coöperative part-time schools or classes
 - c) Apprenticeship part-time schools or classes
 - d) General continuation part-time schools or classes, including retail selling
3. Unit trade day schools or classes
4. General industrial day schools or classes in towns of less than 25,000 population

EVENING INDUSTRIAL SCHOOLS

The controlling purpose of the evening industrial classes is to provide training in the various wage-earning pursuits that will supplement the daily occupations of the members of the classes so as to make them proficient workers. Approximately 175,000 wage earners are taking advantage of these trade extension courses in the evening schools of America.

EVENING MINING SCHOOLS

One of the largest forms of evening-school classes organized thus far in Penn-

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sylvania has been the evening mining-school classes. In recent years, the mining interests have keenly realized the necessity for the improvement of trained workers. There were more than thirty centers offering evening mining-school instruction last year. In one of these schools the enrollment exceeded 700 mining men.

TRADE EXTENSION PART-TIME SCHOOLS AND CLASSES

The newer methods of manufacturing and the advance in modern industry has brought about quite a change in the methods of training workers. In many cases, this has changed the situation from the "apprentice and master" type to a varied training program for practically every worker in the industry. In some cases, the training period may not exceed an hour. In other cases, the training period extends from four to six years.

For a period of time, the day trade-school pattern so dominated the situation that the industries felt compelled to conduct their own industrial-education programs in the plants. In recent years, this has changed considerably. In the State of Ohio, special supervisors were appointed a few years ago to assist industry in organizing plant training programs either as private enterprises or under the supervision of the public schools.

In Pennsylvania, as well as in other States, industry in recent years has been increasingly turning to the public schools, asking for assistance in training and educational programs for the young and adult workers in industry. In Pennsylvania, there are a number of these schools. One of them is located in the Ajax Hosiery Mill in Phoenixville, where close to 300 persons engaged in full-fashioned-hosiery manufacture are also following a prescribed training program conducted in the industry on company time. The school, however, is under the

supervision and control of the public schools.

COÖPERATIVE PART-TIME SCHOOLS AND CLASSES

Coöperative part-time schools provide for practical shop training under actual conditions in industry to those boys who have selected an industrial course in the school. The practical shop training is given under an agreement between the industry, public schools, and the parents of the boy. This is done to guarantee a progressive training program to the boy under the supervision of the public-school authorities. In a great majority of cases, the students spend two weeks in schools and then two weeks in industry. There is usually an alternate group in either school or industry. It is of utmost importance that this program of training be well supervised by a coördinator and that all parties are genuinely willing to coöperate to the mutual interest of all concerned.

The values obtained from training under this type of organization are of such great importance that they outweigh the difficulties encountered. This type of program had a normal growth until the depression required a temporary reduction.

PART-TIME APPRENTICESHIP CLASSES

While apprenticeship, as known of old, is apparently on a decline due to the change in our methods of manufacturing and other reasons, nevertheless, a certain type of apprenticeship has continued to prosper. Apprenticeship has continued chiefly in the building trades and certain of the metal trades. In the City of New York, there have been, in recent years, large apprenticeship groups from industry that were given related technical instruction in the public schools. In Philadelphia, as many as 800 apprentices have attended school for four hours each Saturday forenoon.

In the United States Navy Yard at

League Island, Philadelphia, more than 150 apprentices are being taught by instructors from the public schools who have been assigned to meet classes in the Navy yard during the entire week. The training these apprentices receive in school is designed to increase their skill and knowledge in the occupations followed.

GENERAL CONTINUATION PART-TIME SCHOOL

The general continuation school differs considerably by States. In some States this school provides for the group of employed workers between the ages of fourteen and sixteen; in others, between the ages of fourteen and seventeen; in other States between the ages of fourteen and eighteen; and in still other States between the ages of sixteen and eighteen. In all cases, however, these minors are employed.

The group between the ages of fourteen and sixteen quite generally are employed at a juvenile type of occupation. A relatively low percentage of this group are engaged in an apprenticeship type of training. This problem differs in this respect with the sixteen- to eighteen-year-old group. In this latter age group there is less of the exploratory type of training needed and a greater emphasis is placed on apprenticeship.

The enrollment in these continuation schools reflects, to a very marked degree, the opportunities for employment. This, in turn, reflects the economic and industrial situation. In 1928, there were 347,000 of these youths employed in America. In 1931, this number had decreased to 295,000. It has greatly decreased during 1932. The figures are not available at the time of this writing.

Continuation-school work must be considered from the angle of part-time education for employed workers. It is the beginning of adult education and not the "fag end" of an elementary-school education. These youths are more conscious of the fact

that they are employed workers and wage earners than are their elders. They want to be and should be considered as adults.

This school has had an opportunity few schools have had. The teachers and students were not handed a prescribed course of study dictated largely by a higher institution. The project curriculum has had a better chance to function in this school than in many other schools. There were no examinations or book reports to hand in. Truly, the course of study was determined by the real live needs of the students (either immediate or near future). Where this school was given a good progressive teacher and not hampered by too much tradition, the school has done and is doing an exemplary piece of work.

RETAIL SELLING

Retail-selling courses on a coöperative basis have been encouraged through State and national vocational-education subsidies. In certain of these schools, the students spend the forenoon in the school and the afternoon in the stores. In other schools, the plan is operated on an alternate-week or an alternate two-weeks plan. Some very excellent programs have been developed along this line in the larger and medium-sized cities. The students, the schools, and the merchants have learned the value of this type of training given under real life situations.

DAY-UNIT TRADE SCHOOLS

When we think of trade education as a rule the majority of persons think of the day trade schools. According to the National Vocational Education Act, in these schools the students must spend at least fifty per cent of their time in practical shop-work and the remaining time in related technical and academic work. The increase in enrollment has been consistent since the enactment of the National Vocational Edu-

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cation Act until today there are approximately 100,000 students in all-day trade and industrial schools.

LONGER ATTENDANCE AT SCHOOLS

There has been a growing tendency towards lengthening the period of school attendance for the mass of school children. While this tendency is noticed more at times such as we are at present experiencing, nevertheless, this rising age level for the masses has been rather constant over a longer period of time.

The introduction of labor-saving devices has removed the necessity for the employment of so large a group of workers. Even though the young workers may, in many instances, be superior to the older workers, the pressure of society demands that they remain out of productive industry so that the adults may be assured of this employment.

The attendance of this new group of youths in our high school has furnished a most challenging problem to the school administrators. The traditional college preparatory course has not met the demands of this group. In fact, it should not be expected that it should for it was designed for another group. Progressive school administrators have turned to the all-day trade school for the partial solution of this problem.

A LARGER UNIT NEEDED

A review of the interests and ambitions of the youths in our high schools will reveal a wide range. This range is so wide that if the district seriously undertakes to meet this demand it would become necessary to draw students from a very large school population area so as to have groups of students of like interests sufficiently large to make it economical to offer them these trade courses.

Some districts have tried to offer a very

limited number of trade courses in a cosmopolitan high school. The adjoining senior-high-school district usually copies this organization until a city frequently offers a certain few trade courses in every one of their high schools but fails to offer the large variety of courses represented in the students' choices and also fails from the possibility of placement. This has been a very costly procedure and one which will some day cause the school to be called upon to give an account of its stewardship.

For these reasons, the larger cities are today providing for the separate city-wide trade school. In these trade schools, they avoid duplicating the trade-school offerings but rather extend the number of trade offerings.

This point might be illustrated in the number of pattern-making trade courses which have been offered in practically every high school. The demands from industry and the first occupational choice, so far as youth is concerned, would indicate that in a majority of even the largest cities one such trade course in a city would be ample to supply the needs of students and industry.

Much might be said in favor of the cosmopolitan high school. The schoolmen, including the vocational group, are in sympathy with the purposes of this school. However, the administrative difficulties in making the vocational-education program more directly serve the varied interests of our youths have made it necessary for the larger cities to establish central trade schools.

TRADE COURSES TAUGHT

A study of the trade offerings that are given in our vocational schools indicates that only about one third of them are made available through the all-day trade school.

In the all-day-unit trade school, there are a certain number of trades that have lent themselves quite satisfactorily to a teach-

ing situation within the four walls of the school building. The frequency with which these courses have been offered in the unit trade schools runs in this order: cabinetmaking, machine-shop practice, electrical work, automotive work, drafting, pattern making, printing, sheet metal, plumbing. There are other trade courses offered but they represent a scattered group and are relatively few in number.

There is no one general basic course in trades and industry that can fit for or even be the basis for all trades, as electricity, tailoring, woodworking, foundry, printing, etc. It might be conceded that there are certain basic trades and industries that can be offered within the four walls of a school for this group of industrially inclined youths who cannot secure a job in industry and who must attend school. These basic training courses might open possibilities in several trades. The teaching of printing offers a basis for a large field of trades and vocations ranging from the typesetter and pressman to the editor and publisher. Woodworking opens the possibility for approxi-

mately ninety vocations, according to the United States Census. Similarly, a course in electricity opens the possibility of more than one hundred vocations.

There is need for a careful analysis of the occupations in these general terms with a view of discovering a larger number of basic trade courses than those taught now in the all-day trade school. Foods and textiles offer a fertile field for study with a possible view of expansion.

In addition to a study of the additional trade courses that should be offered, the recent industrial conditions indicate that the men in industry should be able to perform more than one job. A number of industries today are training each man in their plant to perform two or three jobs. This is brought about by the frequent change which is taking place in industry.

Change seems to be the only sure thing. Therefore, our youths and the adult workers in industry must be trained so that they are prepared to make the adjustments as they come, and our schools must contribute towards this end.

JUNIOR-HIGH-SCHOOL EXPLORATORY UNITS IN PRACTICE

E. C. CLINE

EDITOR'S NOTE: *Dr. Cline has discovered that many schools are dropping their exploratory units. His study is most convincing. Dr. Cline is principal of the Oliver P. Morton Senior High School, Richmond, Indiana.*

F. E. L.

THE junior high school merits as well as any recent development in education the opinion of Cox that it is a revolutionary movement.¹ In spirit and theory, at least, it awakened great interest and hopes in the secondary field—if not in the entire educational field. In the nature of the case, any movement in American education is vast and complicated by all the factors that come

to play in a large, democratic, decentralized, none-too-homogeneous nation. Moreover, social experiments, under any conditions, have a way of becoming complex, as well as aimless and nonproductive, unless they are carefully directed. The junior high school is a social experiment on a grand scale. While it is comparatively young, as the history of social changes go, it has been an active performer on the educational stage long enough to warrant a survey of how things are going in actual practice. There should be accumu-

¹ P. W. L. Cox, *The Junior High School and Its Curriculum* (New York: Charles Scribner's Sons, 1929), vii + 285 pages.

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lated experience that is meaningful; trends, failures, and successes should be evident; a synthesis of the movement ought to be illuminating in evaluating the movement and in setting the stage for ensuing experimental development.

Apart from the easy inference from the nature of things that human strivings need from time to time stock-taking surveys and evaluations so that proper reorientation may prevent the waste of aimless wandering and provide encouragement for fresh endeavors, there have been voices to give evidence that specifically the junior high school, in passing through the modern period, has needed such a survey. At the opening of the period we hear: "We have established and are establishing the junior high school, but already we are forgetting the reasons. In fact many people never knew the reasons."² Glass says: "The junior high school has been made the pivotal point of reconstruction . . . because it has been unhampered by tradition and prejudice" and then adds that there is danger of allowing the school to lose its individuality by making it merely a "physical mixture" instead of a "chemical product."³ In 1927, the same warning seems still necessary: "The junior high school is a new educational unit. It would be unfortunate if it were 'swamped out' through compromise with conventional procedures."⁴

In view of all this the writer attempted to make such a survey. Of necessity the field was limited. Only one phase of the junior-high-school movement was considered: exploratory units. This particular phase was selected because exploration has been unanimously accepted by all experts in the field

as one of the most important, if not the most important, of the functions of the new school. Briggs clearly set forth the meaning and importance of the function in 1919.⁵ Glass says that "the method of the junior high school is *guidance*" and refers to "testing," "sorting," "finding," and "trying out" pupils as means to this end.⁶ Davis says: "Of all the functions of the junior high school that which seeks to aid pupils in discovering their own capacities and limitations, interests and distastes, powers and weaknesses is, in the judgment of the writer, the most important."⁷ Koos in 1927 calls "the ascendancy of this purpose (guidance exploration) . . . one of the most significant movements that have latterly affected junior-high-school issues."⁸ And so on one might call the roll of all the writers on the junior high school. And in these same discussions, all of the writers stress specially constructed exploratory units as prime means of exploration.

In order to see how these important agencies of exploration are faring in practice, a questionnaire was sent in 1931 to principals of junior high schools in the North Central Association area. Only three-year junior high schools in systems organized on a 6-3-3 basis, in which systems the senior high school belonged to the North Central Association of Colleges and Secondary schools, were included—certainly a selection of reasonably good schools. Replies came from 161 schools in 17 of the 20 States in the area.

The ensuing discussion is based largely on the data collected from this questionnaire⁹

² Walter Barnes, "Suggestions for the English Course in Junior High Schools," *School Review*, XXVII (September 1919), p. 523.

³ James M. Glass, "The Junior High School," *The New Republic*, XXXVI, Part II (November 7, 1923), pp. 19-21.

⁴ Fifth Yearbook of the Department of Superintendence, *The Junior High School Curriculum* (Washington: The Department of Superintendence, 1927), p. 4.

⁵ Thomas H. Briggs, *The Junior High School* (Boston: Houghton, Mifflin and Company, 1920), pp. 42, 160-169.

⁶ James M. Glass, "The Junior High School," *op. cit.*, p. 21.

⁷ Calvin O. Davis, *Junior High School Education* (Yonkers: World Book Company, 1924), p. 99.

⁸ L. V. Koos, *The Junior High School* (New York: Ginn and Company, 1927), pp. 52-55.

⁹ For the complete study see: E. C. Cline, *Investigation of Exploratory Units in the Junior High School*, Teachers College Thesis, University of Cincinnati, 1931.

bolstered by findings and opinions of others who have been interested in the field.

As far as the theory is concerned, the principals seem to be in full accord with the principles laid down by the experts. Exploration is accepted as an important function of the junior high school, and the aims of exploration are to (1) explore the interests and capacities of pupils and (2) to reveal the nature and opportunities of future school and life activities. Exploratory units are recognized as valid means of exploration and every school has one or more such units.

However, the study of the application of theory to practice revealed a state of affairs that was surprising even to one who during ten years of investigation of junior-high-school general-language units had been led to suspect that all was not well in the field of exploration.¹⁰

In the first place there are relatively few exploratory units in existence. Taking as a whole the junior-high-school courses of study, 56 per cent of the subject fields have no such units. The frequency varies from 8 per cent in English to 65 per cent in science and practical arts. Despite this lack of exploratory units, 50 per cent of the schools have made no additions in the past five years, while 25 per cent have actually either dropped one or more exploratory units without replacement or have substituted therefor "old-line" subjects, such as Latin for general language, algebra for general mathematics, biology for general science. There is a net gain in five years of one exploratory unit for each four schools. Of two things, one: either theory is wrong in advocating exploratory units in all the major fields of learning¹¹ or the junior high schools are sadly neglectful of one of their major tasks.

¹⁰ E. C. Cline, "General Language," *School Review*, XXXVI (September 1928), pp. 510-515. "Some Problems Relating to Exploratory Courses," *School Review*, XXXVIII (March 1930), pp. 206-210.

¹¹ Thomas H. Briggs, *op. cit.*, pp. 42, 160-169.

In addition to the paucity of exploratory units, a strange anomaly occurs in the matter of the prescription of exploratory units. Theory is not clear on the point as to whether such units should be required of all pupils or not. In practice these units are required in only 60 per cent of the cases. An elective exploratory unit seems necessarily to be a contradiction of terms. How can a unit explore pupils who do not elect it? One might intelligently elect *after* having an exploratory unit but not before he has had it. Pupils who elect a unit either do so ignorantly in which case many are not exposed to all possible revelation of capacity or interest, or they do so intelligently, on the basis of an interest or capacity already revealed; in either case the exploratory unit fails of its alleged function in a large degree.

The chief mechanical difficulty to making exploratory units constant is the number of the exploratory units offered, and this is tied up with the hopeless confusion as to the nature of the content of the units. Both the theory and practice agree that there are two very distinct types of exploratory material: the *general* and the *tryout*. The former type is made up of overview, survey, informational material in which the pupil learns about a field of study or a vocational opportunity; in the latter type of unit, the pupil works with actual samples and determines from such experiences his future course. In theory both types are about equally stressed; in practice there is a strong leaning towards the tryout type. Obviously, if samples of all the special subjects and of numerous vocations are put into separate units, there will be too many for any one pupil. Bruner, for example, mentions 28 different units all of which are elective although four must be chosen in the seventh grade and two to four in the eighth.¹² If the

¹² H. B. Bruner, *The Junior High School at Work*. Teachers College Contributions to Education, No. 179 (New York: Teachers College, Columbia University, 1925), p. 18.

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general type is used, however, either entirely or as the basic ingredient, the number can be greatly reduced—perhaps to one unit in each subject field—then these units may be made constants and each pupil will benefit by the exploratory program.

The crux of the problem here is the relative value of general and tryout material. Is one better than the other? Do their values vary in different subject fields? Is it practicable and effective to use one exclusively? Ought the units to be composites of both types of material as Briggs suggests for general language?¹³ All these questions are unanswered in practice. As was noted above, complete chaos reigns; every exploratory unit has every conceivable variety of material from pure tryout at one extreme to pure general at the other. Much experimentation is needed to settle this problem which really lies at the base of all the trouble.

One possible reason for the moribund state of exploratory units may be the failure of the tryout type. As has been noted, there is a distinct leaning of principals towards this type. While a certain amount of tryout material may have some value in certain fields, such content has distinct and serious shortcomings. In the first place, such material rarely meets Briggs's criterion for exploratory units that they be justifiable apart from their exploratory values;¹⁴ tryout units are likely to have little value per se. In the second place, tryout material is frequently not a valid sample of future work; a few beginning lessons of Latin will seem interesting not because of the nature of the work but because of its novelty, and, worse, such simple initiatory exercises are not real samples of the work entailed in doing a two-year stint of Latin. Finally, the sampling is perforce either extremely super-

ficial or ridiculously incomplete; in industry, for example, any extensive sampling even of its larger divisions would leave little time for any one exploration, while a real exploration would necessarily be so limited to a few vocational possibilities that it would be ludicrous to assert that thereby any given pupil is finding *his* niche in industry. Such experiences would certainly dampen most principals' ardor for a program of exploratory units. A solution of this difficulty is sadly needed.

Here again the selection of the general type or at least a unit basically general in nature would seem to be the way out. The general type of material is not, at first blush, as obviously exploratory as concrete sampling materials. However, the intrinsic weaknesses of the latter, pointed out above, will become apparent in evaluated practice. There are two bits of evidence that may be indicative of the way to the truth. The first is the trial-and-error experience with general science, a unit that started out with tryout material, then discarded this kind of content to become a general, survey, informational unit, and has finally come to be the most successful of the units born of the spirit of the new school.¹⁵ The other evidence is that by Kaulfers, tending to show that tryout units in language are futile.¹⁶

The survey of exploratory units expected to discover that after 20 years of experimentation certain practices were well established, that unmistakable trends could be noted, and that an evaluating synthesis could be made from which a new spring could be made. Instead there were mere chaos and apathy; theory was accepted without criticism or suggested change, but there was feeble application, and no evidence of ferment or progress. What wished to be a

¹³ Thomas H. Briggs, "The Functions of the Junior High School," *The Classroom Teacher*, Volume X (Chicago: The Classroom Teacher, Inc., 1927), pp. 55-59.

¹⁴ Thomas H. Briggs, *The Junior High School*, op. cit., pp. 26, 42.

¹⁵ Aubrey A. Douglass, *Secondary Education* (Boston: Houghton, Mifflin and Company, 1927), pp. 259-260.

¹⁶ Walter Kaulfers, "Observations on the Question of General Language," *School Review*, XXXVI (April 1928), 275-283.

constructive piece of work turned out to be merely a laying bare of an unpromising situation, unless such suggestions as the above, growing out of the investigation, may point to means of attacking the difficulties that beset exploratory units now in practice. The study offers specific evidence of the

truth of the statement of Cox: "The present curriculum situation is confused both by educational inertia and by conflicting and overlapping conceptions of curriculum aims and values."¹⁷

¹⁷ P. W. L. Cox, *op. cit.*, p. xv.

IS THE JUNIOR HIGH SCHOOL FUNCTIONING?

T. J. MAHAN

EDITOR'S NOTE: *We have been interested for a long time in the extent to which occupational choices persist. "This survey shows some extremely interesting facts as well as some rather surprising ones." Dr. Mahan is professor of education and dean of men, Colorado State Teachers College.*
F. E. L.

WHATEVER measure of success we are to attribute to the junior high school as a justified innovation in educational organization must be judged by the degree of proficiency with which it has accomplished the aims which it has admittedly established:

1. To provide for a period of exploration and guidance which will result in the discovery of dominating interests in vocational activity
2. To reduce the high percentage of elimination below the secondary level
3. To economize time for both the pupil who drops out and the one who continues
4. To continue training on a higher level through social application of the fundamentals mastered in the grades.

These are worthy aims. But have they been attained by the junior high school?

To answer this question—and with full cognizance of the difficulty in attempting to measure such abstruse and intangible qualities—an approach to the solution has been sought through a follow-up survey of the pupils themselves.

This survey, which has just been completed, shows some extremely interesting facts as well as some rather surprising ones.

The pupils of nine junior high schools in Denver and Greeley, Colorado, were asked

to answer the questionnaire. Just prior to the time of graduation, 1,317 ninth-grade pupils were asked to tell what life occupation or profession they had chosen, why they had made the choice, what plans they had for future education, and at what time in their lives they had definitely decided upon their choice of occupation. Then each was asked what exploratory courses he had had in school and what effect they had had in determining his choice. Records were made of their home background.

After three years had passed, these pupils were again ready to graduate, this time from senior high school. Again they were questioned by the same investigator. This time they were in the Denver and Greeley senior high schools. They were asked to name their choice of a vocation or profession, to tell when and why they had made the choice, to tell what plans they entertained for further education, and to answer other questions relating to their choice of work.

A total of 251 students were found to have answered both questionnaires.

The work of comparing the answers made by the same pupil to the two questionnaires offered an intriguing task to those interested in the guidance and exploratory phases of junior-high-school activities.

IS THE JUNIOR HIGH FUNCTIONING?

TABLE I

The occupations chosen by the students who answered both questionnaires have been classified as follows:

Occupation chosen	Number in Junior High			Number in Senior High		
	Boys	Girls	Total	Boys	Girls	Total
Accountant				1		1
Actor or actress		2	2	1	1	2
Advertising agent					1	1
Archaeologist		1	1		1	1
Architect	2		2	1		1
Artist	4	4	8	2	5	7
Aviator	1		1	1		1
Bacteriologist				1		1
Beauty operator					1	1
Biologist				1		1
Bookkeeper	1	8	9		1	1
Broker				1		1
Business dealer		1	1	8	4	12
Carpenter, cabinetmaker, etc.	2		2			
Chemist	3		3	4		4
Dentist	2		2		1	1
Designer, decorator, etc.		5	5		2	2
Diplomat				1		1
Doctor	7	4	11	5		5
Druggist				1		1
Engineer (civil)	4		4	3		3
Engineer (electrical)	11		11	6		6
Engineer (unclassified)	4		4	2		2
Farmer				3		3
Forest ranger	3		3	1		1
Government employee		1	1			
Lawyer	8		8	4	1	5
Lecturer		1	1			
Librarian		3	3		2	2
Musician	2	14	16		6	6
Nurse		8	8		11	11
Painter				1		1
Radio expert				1		1
Salesman	2		2	1		1
Scientist (unclassified)				1		1
Seamstress					1	1
Social-service worker	1	1	2	1	3	4
Stenographer, office worker, etc.		25	25		34	34
Teacher	4	41	45	10	49	59
Traveler		1	1			
Writer	1	2	3		3	3
X-ray operator					1	1
No choice	32	35	67	32	29	61
Total	94	157	251	94	157	251

JUNIOR-SENIOR HIGH SCHOOL CLEARING HOUSE

TABLE II

The changes made by boys in choice of occupations between the junior and senior high schools are shown below:

<i>Original choice in Junior High</i>		<i>Same boys in Senior High</i>	
<i>Occupation chosen</i>	<i>No.</i>	<i>Occupation chosen</i>	<i>No.</i>
Architect	2	Architect	1
		Business dealer	1
Artist	4	Artist	2
		No choice	2
Aviator	1	Business dealer	1
Bookkeeper	1	Business dealer	1
Carpenter, cabinetmaker	2	Business dealer	2
Chemist	3	Business dealer	1
		Chemist	1
		Teacher	1
Dentist	2	Teacher	1
		No choice	1
Doctor	7	Doctor	4
		Druggist	1
		Radio expert	1
		Teacher	1
Engineer (civil)	4	Accountant	1
		Engineer (civil)	2
		No choice	1
Engineer (electrical)	11	Business dealer	1
		Chemist	2
		Doctor	1
		Engineer (electrical)	3
		Farmer	1
		No choice	3
Engineer (unclassified)	4	Broker	1
		No choice	3
Forest ranger	3	Biologist	1
		Engineer (electrical)	1
		Scientist (unclassified)	1
Lawyer	8	Aviator	1
		Diplomat	1
		Lawyer	4
		Teacher	1
		No choice	1
Musician	2	No choice	2
Salesman	2	Salesman	1
		No choice	1
Social-service worker	1	Social-service worker	1
Teacher	4	Forest ranger	1
		Teacher	3
Writer	1	Farmer	1

IS THE JUNIOR HIGH FUNCTIONING?

TABLE II (continued)

<i>Occupation chosen</i>	<i>No.</i>	<i>Occupation chosen</i>	<i>No.</i>
No choice	32	Actor	1
		Bacteriologist	1
		Business dealer	1
		Chemist	1
		Engineer (civil)	1
		Engineer (electrical)	2
		Engineer (unclassified)	2
		Farmer	1
		Painter	1
		Teacher	3
		No choice	18
Total	94		94

The changes made by girls in choice of occupation between the junior and senior high schools are shown in the following table:

<i>Original choice in Junior High</i>		<i>Same girls in Senior High</i>	
<i>Occupation chosen</i>	<i>No.</i>	<i>Occupation chosen</i>	<i>No.</i>
Actress	2	Lawyer	1
		Stenographer	1
Archaeologist	1	Archaeologist	1
Artist	4	Artist	2
		Stenographer	1
		Teacher	1
Bookkeeper	8	Bookkeeper	1
		Business dealer	1
		Social-service worker	1
		Stenographer	3
		No choice	2
Business dealer	1	No choice	1
Designer, decorator, etc.	5	Designer, decorator, etc.	2
		Stenographer	1
		No choice	2
Doctor	4	Nurse	2
		Teacher	1
		No choice	1
Government employee	1	Nurse	1
Lecturer	1	Teacher	1
Librarian	3	Librarian	1
		Teacher	1
		No choice	1
Musician	14	Musician	4
		Nurse	1
		Stenographer	1
		Teacher	5
		No choice	3
Nurse	8	Nurse	3
		Stenographer	1
		Teacher	4

JUNIOR-SENIOR HIGH SCHOOL CLEARING HOUSE

TABLE II (Continued)

<i>Occupation chosen</i>	<i>No.</i>	<i>Occupation chosen</i>	<i>No.</i>
Social-service worker	1	Teacher	1
Stenographer, office worker, etc.	25	Artist	1
		Nurse	2
		Stenographer	15
		Teacher	5
		No choice	2
Teacher	41	Actress	1
		Artist	2
		Beauty operator	1
		Business dealer	1
		Librarian	1
		Nurse	1
		Social-service worker	1
		Stenographer	4
		Teacher	23
		Writer	1
		X-ray operator	1
		No choice	4
Traveler	1	No choice	1
Writer	2	Advertising agent	1
		Writer	1
No choice	35	Business dealer	2
		Dentist	1
		Musician	2
		Nurse	1
		Seamstress	1
		Social-service worker	1
		Stenographer	7
		Teacher	7
		Writer	1
		No choice	12
Total	157		157

The occupational choices of these 251 students were classified into a category of 42 divisions aside from the group who had no choice.

The distribution of choices is shown in Table I. But the table itself shows little of the significance to be attached to the work of the junior high school. Table II, therefore, gives considerable light to the matter by showing how the students changed their choices. Especially to be noted is the fact that among the 67 students in the junior high school who had no choice of occupation, 49 of them still had no choice even after finishing the senior high school; and to these

49 there had been added 12 more who had formerly thought their choices made. In other words, 61 senior-high-school graduates had no choice as compared with 67 junior-high-school graduates with none. It appears then that the entire field of exploratory and guidance work in the junior high school had been able to aid less than 27 per cent of the pupils in finding some sort of permanent interest; and the combined efforts of the junior and senior high school had succeeded in adding only six to the total number!

And even with this percentage there is no validation of the claim to having been instrumental in each child's choice where a choice

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was made, for only 17 per cent of the students attributed their choice to training received in the junior high school. In fact, only 43 per cent said that their choice had been made after entering the junior high school.

There appears to be a very slight positive correlation between the definiteness of choice in the junior high school and the likelihood of continuing in school throughout the full senior-high-school course. Whereas 67 of the 251 pupils who finished the senior high school had no choice of occupation in the junior high school, making a percentage of slightly less than 27, there were 416 of the entire original group of 1,317 who had no choice in the junior high school. This means

that at least 31 per cent originally had no choice.

The next question that naturally arises is what percentage of the pupils who did have a choice in both the junior and senior high schools changed their choice during the time elapsing between the two questionnaires? A tabulation of Table II shows that of the 184 pupils who had a choice in both high schools, there were only 26 boys and 52 girls who made changes in their choices.

Table III below deals with the total number of pupils who answered the first questionnaire and shows the numbers of both boys and girls who gave answers to all parts of the study.

TABLE III

SOME RESULTS OF A QUESTIONNAIRE SUBMITTED TO GRADUATING STUDENTS OF THE NINE JUNIOR HIGH SCHOOLS OF DENVER AND GREELEY, COLORADO

	Boys	Girls	Total
1. Number who had decided upon occupation	399	502	901
2. Number who had not decided upon occupation	189	227	416
3. Number deciding upon occupation after entering junior high school	263	299	562
4. Number deciding upon occupation before entering junior high school	188	204	392
5. Number attributing choice to training in junior high school	81	141	222
6. Number deciding upon occupation for other reasons	311	300	611
7. Number choosing occupation of parents	65	32	97
8. Number having had exploratory courses	538	610	1148
9. Number choosing occupation related to exploratory courses	176	225	401
10. Number choosing occupation unrelated to exploratory courses	226	218	444
11. Number planning to attend senior high school	571	648	1219
12. Number expecting to graduate from senior high school	544	616	1161
13. Number expecting to attend senior high school only one year	1	3	4
only two years	32	26	58
only three years	110	125	235
14. Number planning not to attend high school	33	38	71
15. Number who planned to attend some type of vocational training school ...	21	46	67
16. Number planning to quit school and go to work	19	11	30
17. Number planning to attend college	417	452	869
18. Number planning to attend college only one year	14	10	24
only two years	19	38	57
only three years	6	2	8
19. Number expecting to graduate from college	357	395	752
20. Number choosing a course designed to prepare them for their chosen professions	257	256	513
21. Number choosing a course unrelated to the chosen profession	53	58	111
22. Number not having decided what courses to pursue in college	100	128	228

It will be noted from the above tabulation that 1,219, or approximately 93 per cent of the 1,317 students, at the end of the junior-high-school course expected to attend senior high school, and of this number, 1,161 or 95 per cent expected to graduate from senior high school. The number who expected to attend only one or two years is negligible. Eight hundred sixty-nine, or 75 per cent of those who expected to graduate from senior high school, planned to attend college; and of this number 752, or 86 per cent, expected to graduate from college. Hence, in so far as the expressed opinion of the junior-high-school students is reliable, it would seem that the junior high school is accomplishing its holding-power objective in high degree.

Judging from the fact that 111, or 13 per cent, of those who planned to attend college were all that had any idea of selecting courses designed to prepare them for the professions they had stated the intention of entering, it appears that the junior high school is only fairly successful in developing a permanent interest with respect to professional ambitions.

It is noteworthy that the majority of stu-

profession you have named?" certainly indicates a paucity of imagination and ideas. Has the junior high school, or for that matter the senior high school with its supposed continuation and extension of the junior-high-school exploratory service, done anything to enrich the child's fund of inspirational and idealistic concepts of his life work? Has anything been done to aid the pupil to see newer and brighter avenues of pursuit and broadened employment for his aesthetic ideals in professional service? One would assume that the guidance of years of planned school contacts in exploratory experience should make more firm the child's understanding of the numerous possibilities in the fields explored. But witness the reasons listed by the students who, at the end of the senior high school, answered the second questionnaire. The reasons listed are ranked in order of frequency in Table IV.

A very significant fact is seen in the results of a careful check made upon those students who failed to answer the second questionnaire. Every effort was made to secure information about all of the students who had answered the original questionnaire. The boys' and girls' advisers and coun-

TABLE IV

	Boys	Girls	Total
1. Because I like it and am interested in it	31	91	122
2. Because I am best fitted for it	3	6	9
3. Because it has a future	5	1	6
4. I have followed it in senior high school	3	0	3
5. Because I have no money to go to college	2	0	2
6. Because I may make a success in it	0	1	1
7. To get money with which to go to college	0	1	1
8. Familiar with it through home contact	0	1	1

dents in both high schools chose professions on the higher levels. Little change from one level to another is recorded between the two questionnaires, as will be seen by an examination of Table I and Table II.

The type of answers given to the question, "Why did you choose the occupation or

selors and assistant principals or principals were interviewed and they checked the list of names personally and gave information about all of those who had been enrolled and were unaccounted for as far as it was possible for them to do so. Every available record was used. Hence, it is believed that

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the figures reported in relation to their records are reliable in a high degree. The outstanding fact here is that out of the 524 who completed the high-school course only 298 had made a definite choice of a vocation, while 226 had not, and that only 112 still held to the choice of vocation of the year of their graduation from junior high school while 252 had either changed their choices or dropped their former plans without making a new choice of a vocation.

It is planned to follow the study further with a view to investigating the college records of these students after the lapse of sufficient time for them to have completed their college courses. At present, however, the results of the data presented here seem to justify the following conclusions:

1. The occupational choices of students are influenced more by other factors than by junior-high-school experiences

2. The vocational choices of the larger percentage of junior-high-school students are changed before the end of the senior high school

3. The exploratory or "finding" aim of the junior high school is not being accomplished for the larger number of students

4. The junior high school does not materially increase the retaining power of the school nor reduce elimination from school

before the completion of the senior high school

5. The ambitions of junior-high-school students are apparently not ennobled or clarified by training in the junior high school.

6. There is lack of proper programs of vocational and educational guidance which will lead the students to make proper choices and develop vocational interests that will be more permanent

7. There is need for much study and evaluation of the influence of the junior high school upon the later life of the child.

The writer feels justified in suggesting that the entire field of vocational guidance should be built around a continuation program extending through the entire precollege experience of the student. With exploratory contacts in the junior-high-school program and with extended and related experiences in the senior high school designed to broaden and improve the contributions of the junior high school, a greater persistency might be evinced in the influence of school guidance. If further investigations verify the findings of this study, then the apparent need of the entire guidance régime is that it be augmented by some plan of complementary work in the senior high school or initiate a complete new program within its present confines.

EXPLORATION AND GUIDANCE IN THE JUNIOR HIGH SCHOOL

A. Y. MAYNARD

EDITOR'S NOTE: *Mr. Maynard and the faculty of the Franklin Junior High School of Highland Park, New Jersey, decided to discover and record the "significant" interests and aptitudes of their pupils as an aid in counseling. What do you think of their plan?* F. E. L.

IT is generally recognized that one of the important functions of the junior high school is to explore the interests, aptitudes, and capacities of pupils. Many junior high schools make some attempt at doing this. Exploratory courses are offered. Comparatively rich and varied extracurricular pro-

grams are set up. Some attempt is made in most of the school subjects to discover special interests and aptitudes.

The discoveries made as a result of such exploration are sometimes used by the teacher in making individual assignments and motivating individual pupils for schoolwork.

The special interests and aptitudes of the pupils are to some extent utilized and to some extent cultivated by the teacher who has discovered them while the pupil is working with that teacher. These interests may or may not be discovered, developed, and utilized by other teachers. Only occasionally does a school provide for the recording and passing on of information in regard to the special interests and aptitudes of pupils. Only rarely is there systematic cultivation and expansion of pupils' interests and aptitudes throughout their junior-high-school career.

Junior high schools fall short of realizing the full benefit of exploratory work largely because of failure to extend the process to the logical conclusion of using the special interests and aptitudes discovered and developed as the basis for educational and vocational guidance. We should not only "Explore the interests, aptitudes, and capacities of pupils," but we should use our discoveries as a basis for the "direction of students into avenues of study or of work for which they have manifested peculiar fitness."¹ This final step needs to be given the emphasis which it deserves. The knowledge that all important interests and aptitudes discovered would be recorded, cultivated, and utilized not only for increasing the pupil's interest in schoolwork and using worthily his leisure time, but also for guiding his choice of a high-school curriculum, and possibly his life work, would tend to convince the teacher that efforts at exploration would not be wasted. It is not intended here to deprecate the development of special interests and aptitudes for the worthy use of leisure time, but rather to point out the additional and perhaps more practical use that may be made of the results of exploratory activities.

Convinced that the full benefits of their exploratory work were not being realized,

¹ Dr. Thomas H. Briggs.

the principal and teachers of the Franklin Junior High School (seventh to tenth grades, inclusive) at Highland Park, New Jersey, decided after much consultation to add the following steps to the exploratory program of the school:

1. To record the important interests and aptitudes of each pupil in so far as they may be discovered and to make these records available to all teachers in the school. Provision is made for additions to the record as interests and aptitudes are developed.

2. To make use of these recorded interests and aptitudes in guiding pupils in their choice of high-school subjects and curricula, and future occupations. All records are placed at the disposal of two teachers who have special guidance responsibilities in the school. Subject teachers are responsible for a certain amount of guidance within their fields.

3. To endeavor to discover in connection with each school subject the special interests, aptitudes, and capacities of pupils in that field of learning, and to make pupils aware of the significance of such interests, aptitudes, and capacities to future education and occupations.

In recording interests and aptitudes it was decided:

1. To record only interests and aptitudes of "real significance." These are usually accompanied by enthusiasm and a disposition to follow them with or without credit, and at the expense of time and labor. The possibility of developing a casual interest to the point where it becomes of "real significance" is recognized.

2. To mention (a) those interests and aptitudes that have vocational significance, (b) those that indicate fields of profitable endeavor in high school or college, (c) those that are most likely to lead to the profitable use of leisure time.

3. To state in addition to the description of interests or aptitudes (a) what if any-

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thing is being done to encourage and develop the interests or aptitudes named, (b) the extent to which the pupil is made conscious of the significance of these interests or aptitudes, (c) the extent to which the pupil is being guided by these interests or aptitudes in the selection of subjects for future study or in planning his future occupation.

A few of the more interesting reports from subject teachers follow. These are condensed where necessary and recorded.

Alfred —, 10th grade. Has failed several subjects.

Alfred shows an unusual interest in mathematics. It seems to be the only subject in which he excels. Solutions to problems seem to come to him easily and naturally without outside assistance. To keep up his interest he is given problems of peculiar difficulty which other pupils in the class are unable to solve. At times he assists other pupils. He wishes to become a designer of aeroplanes. His interest in mathematics should be of benefit in this field. He expects to take a course in drafting when he reaches senior high school. He is intensely interested in this one field but an interest in other subjects might be brought about by relating them to his one great desire. He has read and studied a mass of material on this subject, to the neglect of his schoolwork.

Teacher of mathematics

William —, 9th grade. Schoolwork below average.

William is intelligent and active but does not quite make the grade in some subjects. In some classes his mind is apparently wandering but I know that this is due to his having in his pocket at the time some rock or mineral which he has found (either in a clay bank or river bed) a day or two before. Much of William's money, earned through music, is spent on his favorite hobby. His artistic sense is keenly alive, even in arranging minerals and rocks. He has fitted electric lights in his cabinets to show the coloring and luster of his specimens. He is very much interested in crystal building, and has made a number of crystals equal to those found in the Rutgers laboratories. He has found that he must make a thorough study of physics and chemistry to go on with his work. He is planning to spend his vacation in a nickel laboratory where his uncle is one

of the chemists. While in the mountains last summer, working in an orchestra, he found many specimens in that locality. He corresponded with me all summer, describing his specimens, and trying to find (as well as we were able to by letter) whether the specimens were worth adding to his collection. He is at times inclined to be discouraged and apparently sullen, but this can be overcome easily by the right approach.

Teacher of geography

William plays the saxophone very well. This instrument is one of limited possibilities. It is not a symphonic instrument and does not allow for a rich development of the individual through music literature. I have, therefore, attempted to develop another interest. This was easy to do since William also plays the violin. I have encouraged the playing of the violin rather than the saxophone in the school orchestra, and have given him a part in a string ensemble group. The last step in an attempt to increase William's interests in the stringed instruments was to lend him a cello owned by the school. His uncle is a cellist and is able to help him. I have asked him to play the cello in the group of stringed instruments for the operetta.

Teacher of music

William has a highly artistic temperament combined with an intense interest in scientific research. His scientific investigations follow along lines having to do with mineralogy. He has two rooms of specimens, shelved and labeled. He has a high-power microscope, and numerous slides correctly labeled and indexed. He reads and studies continually along these lines. In addition to his interest in minerals he has an interest and a gift for music. Also, in his appreciation for words and their uses he has shown marked understanding and feeling. He plays with words as he must play with his minerals, choosing and respecting them as his artistic sense demands. He is capable of producing very lovely bits of composition when inspired by his hobbies. He can also deal with a subject scientifically and without a trace of the poetic feeling he shows at other times. These are written, for the most part, with fine disregard for capitalization, spelling, etc. He is erratic in his reactions, not always dependable in meeting his obligations, and has been reported by certain teachers as being extremely disagreeable. If his interest in science and his ability for writing could

be combined the result might be valuable to him later.

Teacher of English

Ernest —, 8th grade. Schoolwork below average.

Ernest is a changed boy since beginning science, and having an opportunity to talk about birds occasionally. He seems to be deeply interested in birds, more than in any other phase of outdoor life. His work is usually desultory. He has usually done about a third of an assignment in English, and that in an unsatisfactory manner. He is working on "Birds" as his individual project, asking intelligent questions and making an effort to find material. He is one of the group with whom I am taking bird walks once a week after school, and is very enthusiastic and well behaved while with the group. This attitude seems to be carrying over to class behavior, not only in science but also in English. His attitude is much more satisfactory than formerly. This is perhaps partly due to general or homeroom influences, but I have noticed a very decided change from the very first time I talked about birds with him.

Teacher of science
and English

James —, 10th grade. Work average.

Interests and aptitudes:

1. Those that have vocational significance:
 - a) Mechanical drawing
 - b) Aerial navigation
 - c) Study of motors of all sorts
2. Those that indicate fields of profitable endeavor in school.
 - a) Mechanical drawing. He is making a special study of aeroplane construction in connection with his mechanical drawing.
 - b) That part of the science course that applies to motors.
 - c) Gymnasium work and sports of all kinds, but especially those involving his ability as a leader.
 - d) Reading of books of a special type.
3. Those likely to lead to a profitable use of leisure time.
 - a) Reading of books of the adventure type including nature and scientific works. He does not like fiction but has fairly good taste in the type of book he selects. He understands and appreciates what he reads.

b) Games, sports, hiking, etc.

c) Reading and studying about aviation.

Summary: James has a keen sense of humor, a ready wit, and a certain personal charm which ought to be of value to him. I have a feeling that he ought to choose some vocation in which these qualities would be especially valuable, but I do not know exactly what it would be.

Teacher of English

Norman —, 10th grade. Work superior.

Norman is interested in books, the Boy Scouts, and nature study. He is particularly careful as to details and seems to have an unusual amount of patience for accomplishing any assigned task. Because he is so careful I have given him maps to draw, exhibits of French products to make, etc. He would probably make a good research worker, as he works best alone, and is not a good mixer.

Teacher of French

Norman is interested in the study and collection of insects. He apparently spends hours on this at home. I have given him pamphlets on how to collect and preserve insects. I have also given him potassium cyanide (killing) jars, net spreading board, etc., to help him in his work. Norman might continue with or specialize in entomology. If not, this interest has made and can continue to make profitable his use of leisure time. He plans to take up mechanical engineering but he would also make a good research worker.

Teacher of science

Harold —, 7th grade. Work superior.

Harold is talented in geometric construction and design as well as superior in mathematical calculation. This opens up to him the vocations requiring mathematics as a major, and should warrant his choice of mathematics throughout high school. Harold knows that this type of work is essential in a number of professions, and since he is fully aware of the significance of his special ability, and has chosen a worthy goal in line with it, I have done nothing except to point out the value of the various types of work. He is planning to study architecture.

Teacher of mathematics

CLASS ECONOMY

Donald —, 10th grade. Work in tenth grade has been poor. His record is better in the lower grades.

Donald seems to have a special interest in the study of language. He is interested in knowing correct forms in English and in always using them. He looks up the origin of words to get the exact shade of meaning. He is always using

the dictionary in his spare moments. I have helped him "pursue" the origin of scientific words by using both the Latin and Greek dictionaries. He wants to study German by himself at home. He plans to major in music or science at college and thinks German will help him in those subjects.

Teacher of Latin

CLASS ECONOMY

HARRY WESSELS

EDITOR'S NOTE: Much of the learning activity of school children consists in modification of behavior through experiences which reach the learner through the pathway of the senses. The vivid presentation of the material that provides such experiences is the subject of the following article, which seems to the editors to have distinct value for the junior-high-school teacher and principal.

A. D. W.

THE problem of the efficient use of pupil and teacher time is more pressing today than it ever was owing to the great increase in secondary-school enrollment and the need for the careful conservation of the taxpayers' dollar. In seeking a way to provide good instruction for large numbers of pupils at a reasonable cost, the most obvious method is to increase the size of classes. To do so indiscriminately would be impossible without ruining teacher morale and teaching technique.

Reflection indicates that there is a fairly clear line of demarcation between the two types of material to be learned. On the one hand may be classified that material which is learned by individual practice as, for example, arithmetic. On the other hand is the material which becomes part of our experience through the pathway of the senses. In the first group, no doubt, as much individual instruction as is possible is needed.

If vivid presentation of material to be learned can be successfully made to groups of thirty children, the difficulties in presenting it to two hundred ought not to be insuperable, especially as we now have available for school use the powerful aid of the motion picture and, apparently on the immediate horizon, the "talkie."

The Nathan Hale Junior High School consists of seventh, eighth, and ninth grades with half-yearly promotions, so that each grade is divided into two sections, one a half year ahead of the other. In round numbers there are 400 pupils in 7¹, 300 in 7², 300 in 8¹, 250 in 8², 250 in 9¹, and 200 in 9².

The plan now in use in this school schedules each half of the 300 pupils in 7² to meet once a week in the auditorium for a lesson in English. The work presented to this group of 150 pupils is organized with the following principles in mind:

1. Emphasis on vividness and dramatic appeal
2. Inclusion of material having a general interest
Attempt to interest *all* in the group
3. Use of every available visual aid—motion pictures, still films, enlarged charts, large-model demonstration apparatus, dramatizations by pupils, presentation of material by teachers, etc.
4. Thorough organization of carefully chosen material for teacher presentations
5. One teacher, willing to train himself for this work, in complete charge of each program
6. At least two teachers present and responsible for each large group meeting.

The English classes meet five periods per week. If one period is used for a large group meeting, the other four periods are spent in the classrooms by classes of 35 pupils.

The plan is to use the large group meeting for the presentation of material for which all are to be held responsible; the small class meetings furnish opportunity for individual work, socialized recitations, study help, testing, individual assistance, or any other form of classroom and laboratory activity. During the past school year this plan was tried in the subjects of general science, elementary economics, and geography.

The challenge which this work made to the teachers resulted in an application by the teachers of seventh-grade geography for permission to try the plan for the large classes during the second semester.

COMMENTS OF THE TEACHERS

Favorable

1. Saves teacher's time and avoids wasteful repetition
2. Stimulates teacher to prepare his program carefully
3. Marked improvement in discipline while in large groups
4. Lifts out of the ordinary the teaching of certain materials
5. Keeps teacher alert and interesting
6. Less wear on visual-aid equipment
7. Visual aids do for the pupil what the spoken word often fails to do—arouses interest in the subject

Unfavorable

1. Too little pupil participation
2. Subject matter likely to be guided by material available
3. Difficulty of ascertaining the value of these meetings to the pupils
4. Cutting down of classroom time
5. Apt to be looked upon as purely a form of entertainment
6. Many recurring interruptions from without the group

7. Teacher becomes so enthusiastic over subject in hand that he lectures for too long a time.

1. The objection that there is too little pupil participation indicates that the person making it has lost the point of the situation. The attempt is being made to stimulate the teacher to use his skill in presenting the material to be learned to a large enough audience to warrant his especially careful preparation and at the same time bring to his assistance all that present-day knowledge affords. There is no place in these meetings for pupils stumbling through a recitation.

2. It is true that the subject matter is likely to be guided by the material available, but what of it? Has this not always been true of all teaching?

3. There is difficulty in ascertaining the value of any method of learning. This does not differ from other methods in this respect.

4. Of course classroom time is cut down but it is contended that the total gain to the pupil is increased.

5. Certainly the tendency by the pupil to look upon these large group meetings as a form of entertainment cannot be denied. It is our belief that teaching skill and various forms of testing can offset any serious danger here. As a matter of fact, education does not need to lack entertainment to be useful. It may be an asset rather than a detriment.

6. Interruptions can be eliminated by proper administration.

7. Self-criticism by teachers and adequate supervision will tend to restrain teachers who are overenthusiastic about talking.

From the standpoint of the administrator these large classes add a burden to program making.

The saving in teachers' time, as well as the avoidance of repetition in the classroom, may be calculated. A group of 175 pupils would make 5 classes of 35 each and take up 5 teacher-hours. Combining them once a week and placing them in charge of two

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teachers would save 3 teacher-hours per week. Thus 8 groups of 175 each, meeting once a week, would save 24 teacher-hours or the services of a full-time teacher.

How such teacher-hours may be utilized best depends, of course, on the situation. Possibilities include (1) extension of extra-curricular work; (2) extension of individ-

ual help; (3) more free time for teachers; (4) reduction of teaching force; (5) development of in-school-time teacher committee work.

On the whole the plan has worked out satisfactorily during the past year and it is proposed to extend its scope in this school during the coming year.

CIRCUS DAY IN THE JUNIOR HIGH SCHOOL

PHILIPINE CRECELIUS

EDITOR'S NOTE: *Miss Crecelius, of Blewett Junior High School, St. Louis, understands children. CLEARING HOUSE readers will remember her book, written in collaboration with H. H. Ryan, on Ability Grouping in the Junior High School. This article is another in the series on "concerted action" edited by Earle Rugg.* F. E. L.

IN EVERY live junior high school there are always so many problems crying out to be solved that it is often difficult to know which should be given precedence. When the solution is needed because a large section of the student body is finding some difficulty in becoming properly adjusted to the life of the school or because that delicate flower, school spirit, is drooping and fading through lack of the proper environment for its continued growth, it becomes possible to single out the problem that requires immediate attention.

The eighth grade in a certain junior high school had reached a stage where an obvious "letting down" was quite noticeable. It had been observed for some time that eighth-grade pupils lacked interest in their school work; it was frequently said that eighth-grade classes were the hardest to teach. More cases of discipline were referred to the office from this grade than from either the seventh or the ninth. The pupils themselves seemed to feel that the eighth grade was of less importance than either of the other grades. In the seventh grade everything was different, new, and exciting; in the ninth grade the pupils were reaching the exalted heights usually occupied by seniors

in any school. The school was apparently developing three separate units which were steadily drifting farther apart, for the central unit was the weakest.

Logically speaking, the eighth grade is the pivotal point and, therefore, probably the most important of the three grades in the junior high school. It is at least of equal importance with the others. Its members are a bit nearer the stage of early adolescence than they were in the seventh grade, many of them, indeed, already having entered this interesting stage of development. Since it is one of the major functions of the junior high school to bridge the gap between the elementary and the senior high schools, it becomes apparent that definite provision must be made to prevent the formation of another gap at one of the most critical points in the educational ladder. The problem of motivating the work becomes more difficult in the eighth grade, for the simple type of motivation so effective in grade seven does not work so well here. The pupils are ready to work and play in larger social groups than heretofore. The motives that furnish the most effective urge for the learning activities in this grade will be those that lead to group rather than individual activities. An

eighth grade, therefore, that is merely an extension of the seventh has no identity of its own, nor has it the dignity which gives it a position that is on a par with the ninth grade.

A project was sought that could serve the dual purpose of magnifying the importance of the grade as a unit in the school and of developing a better school spirit by calling for the concerted action of every pupil, teacher, and department in the school in order to carry the project to a successful conclusion.

The pupils themselves enumerated a number of factors that they deemed important enough to require consideration in the selection of the project. Chief among a large number were mentioned such factors as these: the festival must be more pretentious than the May Day celebration for which the seventh grade was preparing, and it must be difficult and interesting enough to impress the ninth graders; boys like athletic games and sports but the girls should not be left out, for some girls like athletics too; boys like to make and do things, girls like to act and to dress up; everybody enjoys a good contest and likes to have a good time.

After considerable discussion in the eighth-grade congress and in the homeroom groups to which the matter was carried by the representatives, the eighth grade decided to hold a circus, and to invite the other grades to participate as spectators.

It was agreed that both meanings of "circus" were to be used in determining the program of activities. The circus was to be thought of as the place in which the eighth grade would hold a field meet of athletic events and other contests of skill and strength, an idea adapted from the circus of ancient Rome; it was to be the place, too, for side shows, wild-west shows, clowns, balloons, and fun making, a more familiar connotation of the term.

When the final plans were completed, and

accepted by the eighth-grade congress, the practical work of producing the project was begun. The congress assumed all responsibility for the management of the enterprise and appointed the committees that were needed to carry out the various phases of the work. A publicity committee was appointed, consisting of three pupils and one teacher of art. This committee saw to it that posters were made and hung in conspicuous places, that write-ups appeared in the school paper explaining the purpose of the circus, and that speakers addressed the other grades at their assemblies, describing the plans and asking for the coöperation of the students in carrying their project to a successful conclusion. So well did these speakers accomplish their task, that several ninth-grade groups that had but recently finished the eighth grade asked to be allowed to participate, on the ground that they had just entered the ninth grade, and besides they "hadn't had a chance to do anything as interesting as this when they were in the eighth grade."

Each homeroom group, with one exception, agreed to build, decorate, and maintain one booth in which some form of program would be given throughout the morning of the circus. The booths were built in the woodworking shops under the direction of the manual-training teachers. They were completed and decorated by the homeroom groups. On the morning of the circus the campus blossomed forth with a variety of gorgeously bedecked booths bearing such titles as these: the gypsy fortune tellers, the maze, the needleworkers, the Indians, Boy Scout headquarters, the flower show, and many others.

One of the groups—a group of boys—planned to have an old-fashioned wild-west show with Indians attacking the stagecoach, cowboys coming to the rescue, a horse race, and so on. This proved to be one of the most interesting numbers on the entire program

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of activities. The stagecoach was made out of a fruit-vender's wagon; the horses and guns that were used were made of wood, and painted in the manual-training rooms; the entertainment was planned and executed by the homeroom group. A special time for this number was set aside by the committee on arrangements so that every one on the campus might have an opportunity to witness it.

The program opened with a mass drill in which the entire eighth grade participated. There were six hundred boys and girls in the grade at this time, and the drill was an impressive sight. The physical-training teachers were in charge of this feature of the program, and the music for the drill was furnished by the school orchestras. There were three orchestras in the school, one in the eighth grade, one in the ninth, and a club orchestra, all under the direction of the same sponsor. A rude platform was erected on the campus to raise the orchestra members a bit above the pupils who were taking part in the drill, thus making the music audible for a greater distance. During the drill the pupils of grades seven and nine were massed at the front windows of the school overlooking the campus and on the terrace directly in front of the school. After the drill was over, they were permitted to go to the campus to visit the various booths at will and to witness the other events that were planned.

One of the events of the morning was a model airplane contest conducted by the eighth-grade members of the airplane club under the direction of their sponsor. Any boy in the grade was eligible whether he was a member of the club or not. A rather strong wind interfered with the flight of the smaller planes, narrowing the contest finally to three participants. Although the results were not wholly satisfactory, the activity itself was distinctly worth while for it gave a number of boys who had no other part in the pro-

gram an opportunity to display their skill and to contribute their share of work to the eighth-grade project.

The chief feature of the program of the morning was the track events for boys and girls. The preliminary elimination contests had been held before the day of the circus, thus leaving the finals in each event to be run off on this day. There were the usual track events for pupils of this age: standing broad and high jumps, running broad and high jumps, dashes, and relay races. A committee of teachers and pupils conducted the track events and helped to keep the spectators behind the side lines which their enthusiasm sometimes led them to overstep.

The following program had been presented to the three grades at assemblies preceding the day of the circus in order that all pupils might know the order of the day and might understand the signals when they heard them.

SPECIAL PROGRAM FOR CIRCUS DAY

1. Wednesday morning the seventh- and ninth-grade groups will remain with their advisers until 9.30. At that time our buglers will blow "Assembly." That is the signal for the opening of the circus. It is also the signal for the passing of the seventh- and ninth-grade groups with their advisers to the positions which were assigned them for viewing the drill. If in doubt, consult yesterday's bulletin.

2. About forty-five minutes later the buglers will blow another blast—this time our usual attention signal repeated twice—to indicate to the eighth grade that the other activities are about to begin. The pupils in charge of marking off the field for the wild-west show will place their lines as promptly as possible.

3. Immediately after the performance of the wild-west show is over, all other events will begin. One *long* blast of the bugle will announce that the booths are open, contestants for track events are to fall in line, and boys who have entered in the airplane race are to bring their planes to the southwest corner of the campus. At this signal all seventh- and ninth-grade groups and their advisers may attend the circus. Pupils are free to move about wherever they wish to go. They are

invited to visit as many of the booths, track events, and so on as possible. They are asked to conduct themselves in an orderly manner. Advisers are asked to help wherever they find that guidance is necessary.

4. Later in the morning, our buglers will sound "Assembly" again. This is the signal for the return of the seventh- and ninth-grade groups to their homerooms. Eighth-grade groups will carry out the plans they have made for dismantling the booths and cleaning up the campus.

The activities planned for the morning of the circus were finished. The buglers blew a mighty blast, the pupils returned to their homerooms to await the ringing of the bell as a signal that the fifth period was about to begin, and the big event was over. It remained only for the eighth-grade homeroom committees to clear away the debris, which they did with alacrity. By one o'clock the

campus showed no signs of having been used that morning by fourteen hundred pupils, teachers, and visitors in a gay and colorful project. There had been no evidence of restraint during the morning, no signs of policing on the part of the faculty, and apparently none was needed. The whole school had been working and playing together, and seemed to have enjoyed the experience. The eighth graders strutted a bit, for they felt they had shown even the sophisticated nines something they had not seen before, and they were deservedly proud of themselves. It is scarcely necessary to point out, in conclusion, that the program just described could not have been carried out without the whole-souled coöperation of every one connected with the school; pupils, principal, faculty, and even the custodians.

THE PRINCIPAL AND TEACHER GROWTH

EMERY N. FERRISS

EDITOR'S NOTE: *In the article which follows, Mr. Ferriss, professor of rural education at Cornell University, describes a highly intelligent and sympathetic plan for coöperation between the principal and his teachers in their joint effort to administer the affairs of their school.* A. D. W.

THE junior high school originated, because of the very forces that brought it into existence, as a school with the dominant idea of adaptation of its educative activities to the pupil. It has developed as a child-centered institution. At its best it has not been concerned with the mastery of subject matter as an end but with the development of children of the early adolescent period in the direction of worth-while goals vital to successful living. Through a rich variety of materials and activities it has endeavored to give boys and girls opportunity for exploring, discovering, and trying out their interests and abilities, and thus through a process of worth-while experiencing finding themselves and their place in their social environment. Through this same process it has

tried to help them to make progress towards the development of integrated personalities.

To be able to fit in successfully with the demands of the junior high school upon him and to direct and guide intelligently and effectively the educational activities of such an institution, the teacher must be a student of the broad purposes of education, of the early adolescent, of the social environment of the school and the times, and of the educational materials, activities, and procedures that link together the child and his social environment in ways which result in educative experiences of high values. This demands a teacher continuously growing in craftsmanship and professional interest and understanding—a professionally dynamic individual. In stimulating and guiding this

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growth in professional craftsmanship and understanding the principal has a key position. He has important responsibilities as a leader.

My problem in this paper is to suggest some of the intramural responsibilities of the principal in promoting this desirable professional growth in his teaching staff. I shall attempt briefly to outline some of these responsibilities and indicate under each a few of the activities of the principal through which he can meet the responsibility. I shall center my discussion about six major heads or responsibilities. They are: (1) to build up a good morale in his teaching staff; (2) to promote the clarification and integration of the activities and duties of the faculty; (3) to coöperate sympathetically and helpfully with teachers in locating, analyzing, and solving their individual teaching problems; (4) to stimulate and guide the professional growth of his faculty as a whole; (5) to give opportunity for and to encourage teachers to carry on careful studies of pupil and teacher problems and to carry on some experimentation in connection with their teaching; and (6) to preserve the individuality of his teachers.

The activities of the principal in meeting these intramural responsibilities towards his teachers will seldom belong exclusively under any one of the major heads just given. There will be many overlappings and should be. The important thing is that the sum of his activities should touch adequately the several responsibilities that are his.

In recent years we have come to recognize more clearly than ever before the importance of the personal element in effective work of any sort carried on by human beings. The success of a teacher or his failure may depend quite as much upon state of mind and attitude as upon preparation for his specific teaching assignment. Happiness in his work, self-confidence, and social understanding and adjustment are essential

elements in successful teaching and professional growth. Where these characteristics are present in the members of the teaching staff of a school there is good morale. Where there is good morale the situation is favorable for successful work and growth. In promoting this good morale the principal can play a major rôle.

There are many ways in which a principal can promote the development of a desirable morale. He can give teachers as far as possible teaching assignments and other responsibilities suited to their interests, training, experience, and ability. He can, particularly in the case of the young, inexperienced teacher, use special care in the assignment of duties so as to reduce the number of adjustments and preparations necessary. Too often the young teacher is given one of the most varied and difficult programs in the school. He can give his teachers a more or less intimate insight into the characteristics of the social environment of the school and the social background of the pupils. He can promote activities and contacts between teachers and community that will encourage and pave the way for continuously increasing knowledge and understanding on the part of teachers of the home and community life of the children for whose education they are responsible. Where there is a Parent-Teacher Association he can do much in this direction by giving guidance and counsel in the making of its programs and by encouraging his teachers to participate in its activities.

The principal can give his teachers confidence in their ability to handle the situations that face them by having confidence in himself, by sympathetically supporting and counseling them in their work, and by assuming his share of responsibility for the results attained in the school. He can make each member of the faculty feel that his particular tasks have an important place in the general progress of the school by dis-

cussing with the teacher his work in its relation to the school program as a whole and by recognizing pieces of work well done. Finally, by his own healthy enthusiasm, by his own active interest in all the activities of the school, and his earnest efforts to improve his own professional grasp and understanding of the problems and activities of the school, he can build up in his school a desirable professional morale and promote among his teachers a healthy professional enthusiasm and vitality.

The second major responsibility of the principal as suggested is to promote the clarification and integration of the activities and responsibilities of the faculty. In meeting this responsibility the principal will need to exercise genuine democratic leadership. He will at any one time be responsible for setting before each teacher the policies of the school and yet at the same time be encouraging suggestions from the teachers as to desirable and needed changes in the general policies of the school.

Specialization among secondary-school teachers as we have it today has its advantages but also presents dangers unless there are operating continuously forces tending to hold together and unify the work of the several departments and teachers. Without such influences operating lack of articulation and even antagonisms may develop which will not only hinder the professional growth of the members of the staff but seriously interfere with the education of the children in the school.

The teachers by the very nature of their training and positions will tend to give emphasis in their thinking to the subject matter within their special fields and be uninformed or indifferent with respect to its relation to the program of the school as a whole. Some will have little or no conception of the junior high school as a social institution with responsibility for promoting not only the intellectual growth of the child

but all other phases of his development.

The principal has the great responsibility of helping each and every teacher to gain a broad conception of secondary education and its place in American life. He should in coöperation with his teachers study the leading formulated statements of the aims and objectives of secondary education and then in the light of these statements define the major purposes and aims of the local school. These broad purposes and aims the principal should keep before his teachers and help them in their specialized activities to reflect these general purposes and aims. Whenever a new teacher comes into the school the principal should assist that teacher to become oriented with reference to the objectives towards which the school is striving through all its departments and activities. Furthermore, he should assist the different departments and teachers in determining their particular contribution in furthering the broad purposes and aims of the school.

To coöperate sympathetically and helpfully with teachers in locating, analyzing, and solving their individual teaching problems we have suggested as the third major responsibility of the principal. With reference to this responsibility he has some of the best opportunities for stimulating and guiding teacher growth. At this point also he needs to make practical use of his knowledge of psychology. In meeting this responsibility he must recognize individual differences among teachers.

The principal's activities in meeting this responsibility may be grouped largely under four heads: (1) classroom observation and the analysis of teaching activities and problems, (2) individual conferences with teachers, (3) coöperation with teachers in gathering facts relative to problems pressing for immediate solution and others less immediate but of mutual professional interest, and (4) the suggestion of books, articles,

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etc., that bear upon the teacher's work and problems.

There are so many possibilities under this third head for the principal to promote teacher growth that brief attention can be given to only a few.

Often the professional career of a young, inexperienced teacher is practically made or marred in the first three or four weeks of teaching. He comes to his work full of enthusiasm and fortified by excellent theory but becomes overwhelmed and discouraged by the numerous adjustments that must be made and the apparent uselessness of his theories in meeting this host of immediate problems calling for immediate solution. Such a situation places a definite responsibility upon the principal and gives him a fine opportunity to start on its way a growing professional life and the development of a coöperative professional relationship that will last as long as the teacher remains in the school.

Through the preteaching conference the principal can help the new teacher by assisting him in interpreting his courses of study with reference to the local school, the major objectives adopted for the school, and the experience background of the pupils. He can give helpful suggestions relative to lesson plans and through the discussions with the teacher over the plans prepare the way naturally for classroom visitation and follow-up conferences in which the teacher and principal can evaluate the plans and the procedures used in carrying them through. Special problems of teaching and class management can be taken up as they arise and plans worked out for meeting them. The principal can give the young teacher confidence by showing genuine interest in his success and by encouraging him to seek advice when baffling problems face him.

Most young teachers do not know how to vitalize their work through the use of cur-

rent happenings and the rich materials available in the local environment. They do not know how to learn from pupils their hobbies and interests so valuable to the teacher in planning points of attack, etc. The principal can be of special service to the young teacher by making suggestions with respect to these items. By special attention to the inexperienced teacher in the first weeks of service and by words of encouragement, counsel, and support the principal can fulfill one of his most important responsibilities towards teacher growth.

With experienced teachers the principal has important responsibilities in regard to individual problems and needs. Through conferences he and the teacher can locate and define teaching problems and raise questions concerning pupil activities, learning difficulties in certain subjects, interests, etc., and study them coöperatively. Through suggested references to books, articles, and reports of experimentation on organization of teaching materials, methods of teaching, the measurement of results, and other similar questions and problems, he can stimulate the continuance in experienced teachers of professional vitality and growth and guide this growth in desirable directions when advisable. The speaker looks back with gratitude and professional admiration to a principal who frequently placed in his box in the high-school office a book or a journal with a note calling attention to chapters or articles pertinent to his work. He also appreciates still the informal way in which this principal, without appearing to be checking up, invariably at some future time asked his judgment as to the content or point of view of the chapters or article called to his attention.

There should always be in this principal-teacher relationship a dynamic conception of professional growth mutually recognized and the identification of teacher and principal with the large purposes of the school

for the attainment of which they are mutually responsible. Throughout this relationship the principal should at all times recognize and give due weight to the teacher's point of view and should encourage the exercise of teacher initiative and originality.

The fourth major responsibility of the principal according to our analysis is the stimulation and guidance of professional growth in his faculty as a whole. The third responsibility referred to the coöperative activity of the principal and individual teachers. In this instance it is a matter of the coöperative professional activities of all or major groups of the staff, including the principal. The principal in meeting this intramural responsibility must be a leader in bringing the faculty to interest itself actively in the consideration of common problems, topics, procedures, etc., affecting all pupils and teachers. A faculty conscious of common teaching and learning problems and coöperatively seeking for their solution represents in a very important sense the climax of the principal's achievement in promoting teacher growth in its intramural aspects.

One of the specific activities of the principal relative to this responsibility is the professional faculty meeting in which problems and topics of interest and value to all are studied and discussed. In these meetings all teachers including the new and inexperienced should have a part. Teachers should be responsible for leading the discussions. The programs for these meetings should be definitely planned and organized around topics of local value and all teachers should know the problems to be discussed and have references to materials a sufficient length of time before each meeting to make possible and encourage special reading and thought. The most promising conditions for growth through these meetings will usually exist where the teachers themselves through committees have had some responsibility for the

topics and problems to be considered and when the problems have grown out of an actual survey of pupil and teacher needs and problems. Usually there will be found problems of sufficient importance and breadth to justify a series of regular meetings extending over a semester or even a year. Illustrative problems that have been the basis of study in junior-high-school faculties are: pupil guidance, supervised study, unit assignments, homeroom activities, pupil participation in government, differentiation of subject matter to meet different levels of ability, etc.

General teachers' meetings of a professional character promote the development of common understanding among teachers as to the aims of the school, interrelationships of departments, and common problems and aspirations, and give encouragement and confidence to each teacher by helping him to realize the forces supporting him in his special duties.

In larger schools the principal may with valuable results encourage group meetings. These may be organized along departmental lines for the consideration of problems of special interest to those teaching in the same fields. Again, they may be organized to bring together teachers who have common interests or problems going beyond departmental lines. Again, they may be organized to bring together teachers who have special responsibilities, such as the sponsorship of clubs, the direction of auditorium activities, and other special duties growing out of pupil needs and activities.

Revising and building courses of study, formulating teaching objectives, organizing parts or all of courses on the unit plan, providing enrichment materials for superior pupils, evaluating and selecting textbooks and supplementary sources are all representative of activities related to the curriculum in which teachers can and should participate. By promoting such professional ac-

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tivities on the part of all or groups of teachers, according to what seems feasible or desirable in the local situation, the principal may accomplish much towards teacher growth. Such activities motivate professional reading and study, bring the pupil and his needs definitely into the picture, and afford one of the most vital and direct means of promoting the improvement of instruction.

As the fifth major intramural responsibility of the principal towards teacher growth, let us consider that of giving opportunity for and encouraging individual teachers to study carefully pupil and teacher problems and to carry on experimentation. In the main, it is the principal's responsibility to offer to teachers of experience, and especially to superior teachers, opportunity for carrying on special studies and experiments within reasonable limits. In fact, if the school is to make the progress it should, such special studies and experimentation are essential.

In all junior-high-school faculties there are teachers of superior ability and interest in original study often of a research type. Frequently these teachers tend to lose professional interest and enthusiasm because they do not find in their regular teaching enough to stimulate them or challenge their best efforts. If they were encouraged to take up some problem pertinent to their teaching or to the activities of pupils with whom they come in contact, their interests and enthusiasms would be revived and quickened. The results of their studies and experimentation would often be of value to all teachers in the school. It is a responsibility of the principal to afford such teachers opportunity to experiment with methods, or subject-matter organization, or to make studies of pupils with reference to their learning processes or any other problem bearing upon the work of the junior high school. To many teachers of the class

just mentioned such challenges are essential to continued interest in teaching and are the means to professional freshness and enthusiasm.

An experienced junior-high-school teacher of biology with whom the speaker happens to be acquainted has this interest in original study or research. Over a period of three years with the encouragement and coöperation of her principal she has carried on an experiment in the organization of her subject for teaching purposes and in the method of presenting it to her pupils. She has been able each year to have two groups of pupils of similar aggregate intelligence levels. One group each year she has taught by a modified Dalton plan and a second group by the daily assignment-class-discussion procedure. In carrying on her experiment she has necessarily made a critical study of the content of her subject, she has selected and used standard tests, she has developed new-type preteaching tests and tests for measuring results after teaching. She has compared results by correlation of pairs of pupils of similar intelligence but taught by different methods. She has compared one group with the other. Finally, as the summation of her study she has drawn her conclusions and written up the results of her three-year project.

No one probably would maintain that this teacher has not been a more valuable member of the teaching staff or a better teacher because of her study. No one would for a minute argue that she has not grown professionally. Undoubtedly she has gained through her study increased professional interest and enthusiasm and a vastly deeper and broader acquaintance with the principles of teaching science in the junior high school and the activities and difficulties of pupils in the study of biological science than she would possess if she had during the three years performed only her regular teaching duties. It is also reasonable to think

that her professional interest and enthusiasm has carried over in some degree to the other members of the faculty.

The last major responsibility of the principal towards teacher growth that I wish to discuss briefly is that of preserving the individuality of the teacher.

An essential factor in a junior high school recognizing and developing the individuality of children is the teacher with professional individuality. Teachers bound to uniform classroom procedures and devices and with a professional vision circumscribed by a set curriculum content and organization and a stereotyped method can never build up a school providing for the needs of the pupils as individualities. Such a school requires teachers with professional initiative, resourcefulness, and originality of thought and practice.

The principal to preserve the teachers' individuality must give attention to the study of the teacher as an individuality and to encouraging, stimulating, and guiding professional activities that recognize individual differences in teachers. He must give attention to the attainment of unity in the purposes and aims of instruction and lay less stress upon uniformity in the methods, devices, procedures, and learning activities used by teachers for the realization of these purposes and aims. One of the most valuable things in teaching is personality. In the first place, two teachers may attain very similar results in their teaching through the use of quite different procedures. In the second place, the temperament and ability of the teacher are important factors in determining the methods that he can employ most successfully. With a reasonable degree of freedom and encouragement a teacher who has a professional interest and point of view may develop a very superior type of teaching. Uniformity in method, subject matter, and organization have tended to produce a mo-

notonous drabness in teaching and teachers.

The principal interested in preserving the individuality of his teachers will strive to utilize the teacher's interests, temperament, experience, and training by adjusting his work to suit these characteristics. Through a thorough knowledge of each teacher as an individual he will, as opportunity offers, help him to find and occupy the place where his best service may be rendered. He will attempt to capitalize upon the teacher's special interests and abilities in the assignment of responsibilities beyond those of classroom instruction. Many teachers have found their special professional interests through these special lines of service. One teacher may have the tact, sympathy, and insight needed in problems of guidance and counseling. Another may be especially interested and capable in diagnosing the learning problems of slow pupils and in solving these problems while a third teacher may be peculiarly successful in stimulating superior pupils to use their abilities to the maximum. Still another teacher may be strong in directing extraclass activities.

The principal in preserving the individuality of teachers will give a desirable amount of attention to the common problems of instruction in the school and will require all teachers to study them, but, at the same time, he will recognize that there are many paths along which teachers may grow professionally. Within reasonable limits he will encourage teachers to study problems or phases of education of interest to them but not being studied by the staff as a whole. He will be especially concerned with having each teacher engaged to some extent in following up in a thoughtful, critical way some special professional interest. He will see that the teacher has helpful and sympathetic advice and guidance in the selection and planning of a study but will not dictate the problem to be attacked.

THE SIGNIFICANCE OF GUIDANCE

FRANK P. WHITNEY

EDITOR'S NOTE: *Frank P. Whitney, principal of the Collinwood High School, Cleveland, Ohio, is one of the outstanding secondary-school administrators in the country. He conceives guidance to be a directive principle which must govern the reorientation of secondary education. So let it be!*

P. W. L. C.

ONE of the newest additions to our pedagogical vocabulary is the word guidance. As a comparatively new term, hard worked enough at present and bound to be grossly overworked in the near future, highly stimulating to some and probably somewhat irritating to others, it at least demands our attention. Any effort to evaluate the significance of guidance will surely begin with an attempt at definition. In a search for meanings we are bound also to try to analyze the relationships involved. One might very well in such a search find it necessary to appeal to his educational philosophy. The champion and advocate of this new term may perhaps be pardoned for hoping that the outcome of this search for meaning may be a philosophy of guidance.

The foreword printed opposite the title page of Chapman and Counts, *Principles of Education*, expresses the confusion and distress with which most of us old schoolmasters meet the new questions which this new age propounds. Trained in subject matter of various kinds, most of it in books, our academic minds recoil with a sort of shocked sadness when confronted with the demand that the results of our training must be expressed in terms of changed behavior rather than in terms of those knowledges and skills which our own education taught us to respect.

Now for many years we have been asking that education be redefined in terms of life. The ends that education is to serve have been stated many times in later years as cardinal principles or as major objectives. And we have been ever so busy reconstructing our curriculum material and reformulating our subject matter in the light of those

aims. Health and family life, vocation and citizenship, character and the wise use of leisure have become the focal points of experience, the conditioned and conditioning experience which we call education.

Life itself has become incredibly complex. Our social life has woven itself into varied and intricate designs. Our family relationships are changing, taking on new forms, losing old meanings, shuffling off old sanctions, acquiring a looseness and flexibility that to one group is a cause for infinite horror and alarm and to another a promise of freedom and new growth. Our economic world is breaking from its old moorings. Here too the settled ways are no more. In place of fixed, dependable, and certain opportunities for making a livelihood there is uncertainty and hazard—at the worst unemployment and idleness, at the best a new fluidity, an unfamiliar mobility of labor and occupation. Our common life is rapidly to all appearances becoming unmanageable. Authority has disappeared. Democracy much of the time is apparently unworkable. The rights of minorities seem to be in constant and irreconcilable conflict. In these and in multitudes of other ways has life become confused, perplexing, hazardous.

The schools have reflected the complexities of life to some extent. They have reformulated their objectives, broadened their courses, added new material, reorganized the old, redirected their instruction in some measure to correspond with the new aims. They have accepted unequivocally the dictum that the school is life but without as yet any adequate comprehension of the far-reaching consequences of that acceptance. They have pretty thoroughly discarded the

old doctrine of formal discipline and introduced a variety of specific trainings to few, if any, of which are attached any of the stern and uncompromising demands of the older discipline. The old school was passive, prescriptive, assured, authoritarian, static. The new school is active, elective, uncertain, self-directive, dynamic.

In the old school lessons were learned. If there was any application of the knowledge gained it was to come later. Skill or knowledge was to be stored up, as it were, against future need. The emphasis was all upon acquisition and preparation. The dominant characteristic of the school was regimentation. In such a school the master was an authority, a fountain of knowledge—at the best an inspirer of youth, at the worst a mere drill master. In the new school the emphasis is all upon application and experience. It is characterized by individualization and its complement socialization. The measure of the results lies not in the examination book but in desirable changes in behavior. The teacher who aspires to be master in such a school cannot be content with knowledge. He must have the wisdom of life. He cannot rely upon authority. He must be guide and counselor.

As our social life has increased in complexity so have our schools increased in size and complexity. Today an enormous differentiation confronts the pupil—differentiation in courses in school, differentiation in social and intellectual levels, differentiation in careers and occupations, differentiation in interests and amusements, differentiation in all sorts of life patterns. Whether society has consciously intended this result or not, it has come to pass that youth is faced today with the necessity of making all sorts of choices, choices in many cases altogether beyond his ability to make unaided with satisfaction to himself or with profit to society. Guidance means merely that some sort of expert help is extended

so that these choices may be made a bit more wisely. The guidance program of the school is the plan of procedure whereby the school attempts consciously so to organize its subject matter, its activities, and its personnel that all its resources are available when needed to help pupils to make better choices. It is the directed effort of the school so to condition pupils faced with the choice of a life career that they shall be more likely to choose wisely. It is the directed effort of the school so to condition the pupil's experience that health and wholesome living shall become not only desirable but possible. It is the directed effort of the school to train him in coöperative living and in the wise use of such liberties and the voluntary acceptance of such restraints as such a mode of living requires. It is the directed effort of the school to build character not through the formal and compulsory acceptance of standards imposed from without but through the release of potentialities from within in such wise as to secure the deepest and most enduring satisfactions. Guidance is not something added to the school; it is, and always has been, an integral and essential part of all teaching of adolescent youth. Just now it has become, because of the transformation which has occurred in education, a peculiarly indispensable function of the modern school.

The development of any new conception requires a new terminology or at least the infusion of new meanings into old terms. The new wine must be put into new bottles. The epoch-making conception of the school as life, as a genuine society, as an end in itself rather than as merely a means to some ulterior end, has written a new language, or at least given what the conservatives love to call a new jargon to educational parlance. The child-centered school, the project method, the activity curriculum are terms to conjure with among progressive school people. The ideas which these terms connote

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have been a powerful leaven in all schools, affecting everywhere to a greater or a less degree the subject matter and the procedure of instruction. The extent of the change in any particular school is not of special moment to us here and now. The direction of this change, however, the trend which it indicates, its universality, and its significance are matters of the greatest possible moment to us all.

It is this tremendous change in educational ideals which is giving meaning to the concept of guidance. It should be quite obvious to every one that in a school or an educational process where the ends sought were knowledge, regimentation, intellectual discipline and the procedures so far as pupils were concerned were characterized by passive acceptance and obedience the rôle of the teacher was that of the director, or pilot. The teacher was always at the helm. He did the steering. His pupils were passengers bound for a port dimly perceived and at some great distance but a port selected by the pilot to be reached if at all over a course plotted in every detail by the pilot. In such a school there was plenty of direction but little guidance.

It should be quite obvious to every one that in a school or an educational process where the ends sought are growth, individualization, personality, desirable modes of behavior, and the procedures as far as pupils are concerned are characterized by active participation and coöperation instead of passive acceptance and obedience, the rôle of the teacher is that of counselor or guide rather than that of pilot. The pupil makes the decisions, selects the port, charts the course—for the most part does his own steering. The teacher takes the helm occasionally, to be sure, but only in time of storm or to save the craft from irremediable disaster. Life is such a school. A school of this sort is indeed life itself. In such a school there is some direction but there will

inevitably be an abundance of guidance.

I have emphasized the change in educational ideals and in educational procedures of the last thirty years because it seems very clear to me that it is only in the light of these changing ideals and procedures that the growing significance attached to the term guidance in education can be understood. It is, of course, apparent that guidance is not a new concept in education. The changing world has brought to light new needs and has at least relocated the emphasis in education. Youth is confronted as never before with a bewildering variety of patterns from which the exigencies of life leave him no alternative but to choose. He may choose gayly or carelessly, blindly or at random, ignorantly or wisely, slowly or hurriedly, but choose he must after one fashion or another. Guidance is needed along every line—the application of whatever sympathy and tact and intelligence the adult may possess to the problem not of making choices for him but of so conditioning his experience that the pupil shall be a little more likely to take the right turn in the road towards a happier and fuller life.

Because guidance of this sort is so indispensable in these days both in school and out, because the consequences of its absence are so altogether likely to be disastrous, it cannot be left to chance and to individual initiative. We can no longer trust to luck that the fortunate combination may arrive at the critical moment of the sudden need: the presence of the friend, the happy inspiration, the required skill, and the abundant knowledge. Such things must be planned for. Experience has taught us that in a modern school with its departmentalization, its varied courses, its high-powered activities, its specialization of function, boys and girls will not be given adequate and effective guidance unless there is careful and thorough planning for such guidance.

Effective attention to such things demands

a sort of synchronizing, a careful timing of the rhythm of youth, an increasing sensitiveness on the part of teachers and parents to emerging crises and pivotal points in the onrush of adolescence. Guidance if it is to be available at these points when and as needed must be organized. Administration must take account of it and make provision for it as one of the indispensable techniques of the school organization. To this concerted, planned, and determined effort to use to the best advantage all the resources of the school in helping youth in the planning of life we give the name, the guidance program. It is fundamentally and pre-eminently a coördinating function of the school. Before the steady and persistent pressure of such a program adequately conceived and efficiently planned, what is trifling and artificial and accidental about the life of the school will tend to be subordinated to major ends and education will result in greater unity and integration of life.

Guidance then is concerned with choices. It is whatever service adults may render youth in making wiser and better the choices they are going to make anyway. Guidance does not mean imposing ready-made decisions. It is no "hocus-pocus, officious destiny-fixing" on the part of meddling Matties in the guise of adult school teachers. Guidance is "an educational philosophy which permeates the very fabric of the school." It is an integral part of education and not something added to it. The guidance function compels the educator to take account of the entire field of education—physical, cultural, vocational, avocational, social, and moral. Guidance with such a breadth of meaning cannot be pigeonholed, or segregated, or compartmentalized, or assigned wholly to specialists. Guidance is a problem in human engineering and as such demands the attention of every teacher, supervisor, and administrator.

Having dealt thus at some length with the sphere of guidance, its general meaning, and especially its growing significance in the modern school, I may be permitted perhaps to indicate some principles which may help to determine its relationships and direct its development in the educational scheme of the secondary school.

First of all, I would wish to say that effective guidance must always be based upon the facts. The facts will include knowledge of the needs of the pupil and of the possibilities open to him. The guidance program will therefore provide for the collection and analysis of all the pertinent facts and for their use when occasion demands.

Since guidance is a continuous and unitary function each adviser should participate to some extent in all phases and in all types of guidance. This principle does not by any means preclude a certain amount of specialization which is in many fields undeniably necessary but it does insist upon the necessity of recognizing the unifying and integrating factors always present in genuine guidance.

Guidance will always and everywhere be premised upon the uniqueness of the individual. Differences of all sorts must be systematically discovered, charted, and used to the best advantage in each pupil's development. The counselor will always keep in mind the truth that in a very real sense the individual is what he may become. The whole program of guidance will be inspired with the hope of the discovery of a constantly increasing number of individuals who represent significant and socially valuable variations. One of the major items in our creed will assert that progress in a complex social order becomes increasingly dependent upon such discoveries.

Guidance will be saved from fussy anxieties over trivialities and kept on the high plane of a thrilling human exploration by a great confidence in human nature and

THE SIGNIFICANCE OF GUIDANCE

in human capacity. We may well believe that there are whole ranges of human ability at present unexplored and undeveloped. With Professor E. B. Woods we may well be confident that "society is suffering less from the race suicide of the capable than from the nonutilization of the capacities of the well-endowed"; and with Professor H. A. Toops that it is our job "to attempt to salvage human capacity wherever possible."

If guidance is to function it must be specific. There must be differentiation and analysis, a recognition of the various phases or types of guidance needed for particular situations along with an ever-present consciousness of the interrelatedness of all forms of guidance as they apply to the individual.

Educational guidance consists of all school activities which deal with the guidance of pupils in their choice of schools, courses, or curricula, as well as all activities connected with the adjustment of pupils to school work. The guidance program will have constantly in view the need of revising and of redefining educational choices at appropriate intervals. When based upon vocational considerations, educational decisions should be regarded as tentative until final choice is necessary. The primary purpose of educational counseling and guidance is to help the pupil to find himself with respect to his interests and abilities, and to understand and appreciate the opportunities offered for his development through schooling. Adequate educational guidance will require from time to time the restatement of objectives, the reorganization of subject matter, and the redirection of procedure in order to make the school or the course serve the real needs of pupils.

The entire life of the school, subject matter and activities, in corridor, classroom, assembly, homeroom, and playground must be challenged to produce situations and experiences involving training in citizenship

and in character. The organization of instruction on the basis of subjects needs to be supplemented by organization on the basis of the great programs of the school: health, character, citizenship, and vocation.

Moral and social guidance will be effective only in response to felt needs. Citizenship will be built only in practice and participation. Ideals will be used only when they are needed. Imposing conventionalities upon youth or requiring conformity to custom should not be confused with growth in character or training in citizenship. Adequate adjustment to society as well as to one's own powers requires that the complementary processes of individualization and socialization proceed *pari passu*. Neither will proceed satisfactorily for the vast majority of pupils under the conditions imposed by modern life without adequate adult guidance. Personnel guidance at its best means both social adjustment and the integration of personality.

Vocational guidance involves building the life-career motive, giving occupational information when needed, studying occupational interests, offering tryout and exploratory experiences, keeping records of abilities and interests, counseling on the basis of all the facts available. We may well believe with Professor Arthur J. Jones that "educational guidance is a necessary element in vocational guidance, and vocational guidance is a necessary element in educational guidance. Any attempt to separate one from the other except for purposes of analysis will result only in confusion and disaster." Vocational guidance is effective to the extent to which it joins abilities, interests, and opportunities. Vocational choices, like educational choices, should be regarded as tentative until confirmed by actual experience.

The keynote of guidance in the elementary school may well be regarded as adjustment of rate of progress to pupil abilities; in the junior high school as the discovery

and exploration of individual interests, aptitudes, and needs; in the senior high school as the development of the life-career motive. In some such way we may distribute emphasis and deepen meanings.

Attention to guidance, physical, vocational, moral, social, cultural, remedial, personal, of whatever type or phase, and to the things which guidance implies, will make us teachers more alert to moral and social transformations, more sensitive to emotional and spiritual awakenings, more willing and eager to meet life half way. Guidance has a philosophy and therefore is respectable. It is no longer a fad. It is a fundamental and essential element in any good school. It is today an obligation, an opportunity, and a challenge especially to all those who work with or in the changing schools of the changing middle years of youth.

The urgent need of the immediate future is for the further study and development of specific techniques of guidance. Some of those dealing with personal adjustment have been well worked out such as the planned interview, the case study, and vocational placement. Other features of counseling, group conferences, personality ratings, college weeks, life-purpose campaigns, orientation courses, etc., all require experimentation and analysis. I include among the needed techniques studies of occupations, not studies and reports by experts, but the studies to be made by pupils, studies of vocational interests and life-career motives,

the use of visual aids in connection with guidance, the making and the use of moral codes, citizenship programs, ethical-training programs, and above all perhaps the utilization of dominant pupil drives. For no one can work around this subject of guidance without getting back at some time or other to the heart and core of the whole business of teaching which, of course, can be nothing less than the heart and core of the whole business of living, the discovery and the reënforcement of the deep intent of the individual's life.

I started out by saying that guidance deals with choices. The trouble with the modern school is that it exalts purposing and purposive activity. It insists that youth shall set its own goals, purpose its own ends, learn to do by doing, learn to choose by choosing. It is an enormously troublesome business, this modern school teaching, infinitely remote from the quiet peace of the school keeping of even our own childhood days. But it is life! We asked for life and we got it. And nothing less than the issues of life are the things we face. Did I say that we face them? It is youth that does that. We face them only as it were vicariously. What we face are dreamings, hesitations, questionings, yearnings, gropings, strivings.

What have we adults whose profession is secondary education to give to youth in these crucial years? The question is insistent. We can neither dodge it nor evade it. We must stand and deliver, and the answer in one word is guidance.

THE EMANCIPATION OF CLASSROOM MOTION-PICTURE PROJECTION

CLARENCE E. HOWELL

EDITOR'S NOTE: *Mr. Howell, who is director of visual education of the department of public instruction of the State of New Jersey, offers in this article some valuable practical suggestions for teachers who wish to make use of motion-picture films with their classes.*

A. D. W.

EDUCATORS who have given the matter careful study have been convinced for some time that the most satisfactory and pedagogically sound use of moving pictures within the classroom involves the actual handling of the materials by the teacher herself. There should be planned preparation, a stoppage of the film for discussion, a reshooting for clearing up doubtful points, and a careful follow-up—things which can be satisfactorily done only when the teacher knows how to operate the machine, and when she has the equipment available over a reasonable period of time. A special operator following a fixed time schedule does not provide sufficient flexibility to meet the needs.

Those who have sought to adopt such a plan for the use of motion-picture projection in the classroom have, until very recently, encountered several annoying and almost prohibitive obstacles. Recent developments have eliminated practically all of these.

So-called portable devices for the standard 35 mm. width films were in reality quite heavy and awkward to handle. They frequently involved somewhat complicated machinery with corresponding difficulties for the teacher in attempting to learn their operation. School systems have tried various schemes, such as sending a special operator from the central office with each machine, or designating one teacher in a building to do all of the operating, all of which were handicaps upon the use of moving pictures at the time and in the place where the teacher could really use them to the best advantage. Some States required an examination and licensing of 35 mm. operators. This, of course, placed additional difficulties in the

path of teacher operation. Then, too, there has always been the question of fire risk. Standard width film is usually produced on highly inflammable nitrate stock. The non-inflammable, or slow burning type, is made largely upon special order, is more expensive, and is limited as to the topics available. The uncertainty as to securing desirable reels of noninflammable stock with the consequent temptation to use nitrate made it necessary for insurance underwriters and State authorities to place certain restrictions around the operation of all 35 mm. projectors.

The improvement of the amateur 16 mm. narrow width projector first produced for use in the home to a point where it is no longer a toy, but a practical, well-built product capable of throwing steady, well-illuminated pictures at fair distances and under semi-daylight conditions, has completely changed the situation. There are several good machines on the market selling for around \$175.00. Cheaper machines are available, but it pays to buy reliable workmanship and materials if long-time, satisfactory service is expected. The 16 mm. film is made only in noninflammable stock; hence, there are no restrictions by the underwriters or State laws upon the use of either projectors or films. Not only this, but the projector machine is small and extremely light in weight, and so simply constructed that a teacher may quickly and easily learn to operate it. All of the necessary parts are exposed, and there is no need for a booth or a projection cabinet of any kind. The reels occupy for storage or transportation only a fraction of the space and weight of the 35 mm. reels, and 400 feet of the 16 mm. is the equivalent of 1000 feet of 35 mm., each of

them requiring approximately fifteen minutes to show. The list purchase price of a full 400-foot reel of 16 mm. film is \$35.00. If given reasonable use and care, such a reel will give several years of very satisfactory service.

With the change to 16 mm. machines has come a corresponding increase in the efficiency of the screens available. It is now possible to get a screen with a glass-beaded surface, afforded a maximum of illumination, which rolls in or out of a protective case at will, is fully enclosed from dust or damage, is quickly set up or taken down, and is readily portable. The list price of such a screen, size 30" x 40" (a suitable size for any ordinary classroom), is \$20.00.

This development of machines, screens, and films would be of comparatively little avail if it were not for another small improvement which looms large from the classroom standpoint. No matter how fine the machine or desirable the pictures, teachers will not use them when they are forced to run a long extension cord out into the corridor, or to get a ladder and climb up to the ceiling for an electrical connection, perhaps having to remove a heavy light globe as well. School boards and administrative authorities are financially reluctant to rewire buildings in order to provide convenient outlets. Now there has been put upon the market a type of wall-replacement fixture combining the older wall light switches with a plugging-in receptacle. These are made the same size as the wall plate for the push-button light switches, so that it is a simple matter for an electrician to remove the existing wall switch push-button or toggle switch fixtures and replace them with the new type. The cost is small, in the neighborhood of \$1.00 per switch, without installation. The only possible difficulty in their installation is in the rare instances where two wires have not been pulled to the existing switches. Any elec-

trician can determine this by a brief inspection.

The production of suitable films for school purposes in the 16 mm. width is proceeding rapidly; in fact there is already such a wealth of material that no one need hesitate about entering upon a projection program of that kind. There is a decided swing towards the 16 mm. film, with the result that practically all educational subjects and many entertainment features, together with most of the travel pictures, may be obtained in 16 mm. as well as 35 mm. widths. One company, for example, publishes a catalogue of its productions especially prepared for educational use, and available only on 16 mm. film, containing 149 titles. A teacher's pamphlet accompanies each, giving a working outline and a large amount of supplementary information. This is only one of the many sources of these narrow width films. Many State and institutional free-lending libraries are making them a part of their regular reference sources.

Thus there is no longer any mechanical or practical obstruction in the way of a workable program for the intelligent use of motion pictures in the classroom as an integral part of the instruction. The point I wish to make now is that satisfactory equipment is available, and that the accessories needed to make visual work in the classroom by the classroom teacher easy and practicable are on the market, all obtainable in good quality at reasonable prices. The introduction of the 16 mm. machines, together with the other developments mentioned, have struck off the last shackles limiting such a program. The next few years will undoubtedly see a tremendous development in the effective use of films within the classroom by the classroom teacher.

Sound in connection with the narrow width film is still more or less in the experimental stage. There are fairly satisfactory devices for synchronizing disk records

SCHOOL NEWS

with the projected picture, but one should purchase such with extreme care. The ultimate will doubtless be a sound track right on the film, just as it is now with the 35 mm. standard theater films. I have personally seen and heard demonstrations of one such device, put out by a reliable concern, which

was quite satisfactory. I understand there that are also others in process of development.

In the purchase of any visual equipment, insist upon an adequate trial *in your own hands and under your own operating conditions* before the deal is closed.

SCHOOL NEWS

From New Mexico

Raton Junior High School has been busy during the past year in curricular revision to meet the ability-grouping problem and to meet the modern trends in fundamental objectives. To the latter end a new course of study in social science was adopted and will be continuously revised in the light of experience. Citizenship has been the main goal of the home and club programs. A consistent effort to improve the reading ability of the child below standard has been made.

In the Raton Senior High school changes in teaching technique to suit the lengthened period of sixty minutes and the supervised study program have been given constant attention. Groups have been utilizing the Morrison technique and the modification of the Dalton and Winnetka plans.

The Santa Cruz High School is perpetuating the Spanish colonial arts by offering work in weaving, wood carving, and tin engraving.

At Magdalena the high school provides for a homeroom hour and work in student guidance.

From Ohio

Glendale Junior and Senior High Schools center their curricular activities around a library which is really a huge laboratory.

The schools at Bridgeport stress student responsibility in the care of their buildings and the establishment of correct school attitudes.

The Collinwood High School at Cleveland throughout all its entire course successfully emphasizes educational guidance.

The High School at Greenfield brings out the best in aesthetic values by means of the study of paintings and other works of art.

From Oregon

The financial administration of the Pendleton public schools is one of the outstanding features

of public education in the State of Oregon. This coming year will see the districts entirely relieved of both bonded and warrant indebtedness and a remarkably low per capita cost of instruction.

Individual work in English of a high degree of efficiency is being carried on in the High School at Cottage Grove. The work is under the contract plan and extremely creditable results are being accomplished.

An extraordinarily fine course in biology and biological science is being carried forward in the Eugene public schools. An unusually fine display of specimens is used to attract interest on the part of the pupils.

The plant and equipment of the Roseburg High School is one of the outstanding features of secondary education in the State. It is one of the best equipped and best housed in the entire State of Oregon.

From the State of Washington

In Washington State at the end of the first year of the new requirements in library standards, as set up by the State Board of Education, the library is truly becoming the heart of the school. Of the 302 accredited high schools in the State there are but three or four that fail to meet library standards.

Directed study, with a lengthened recitation period, is being generally adopted in all the schools. In 1930 there were 69 schools in Washington State using the lengthened period; 1931, 119; 1932, 208.

From Rhode Island

A training course for junior-high-school teachers in Rhode Island has been inaugurated by Rhode Island College of Education. The course includes a specific period of practice teaching under competent critics.

OTHERS SAY

FLOYD E. HARSHMAN

HUNDREDS OF FILMS SHOWN AS AVAILABLE FOR USE OF PUBLIC

An extensive list of sources of commercial and trade-promotion films suitable for classroom use has just been issued by the Motion Picture Division of the Bureau of Foreign and Domestic Commerce, Department of Commerce, in a seventeen-page pamphlet known as the "Composite List of Nontheatrical Film Sources," which gives the names and addresses of 524 concerns which have such films for distribution.

This pamphlet is suggested as an authentic list of film sources to be used by those who may be interested in securing films for nontheatrical exhibition.

Copies of the pamphlet may be secured for 10 cents each (stamps not acceptable) from the Motion Picture Division, Bureau of Foreign and Domestic Commerce, Washington, D.C., or from the Bureau's district offices.

A REPORT OF THE MEETING OF THE DEPARTMENT OF SECONDARY EDUCATION AT ATLANTIC CITY

"The Individual and the High School of Tomorrow" was the theme of the first session of the meeting of the Department of Secondary Education of the National Education Association at the Atlantic City convention. The following are some salient points expressed by leaders in the secondary field:

"In the end personal integrity, honor, self-reliance, and character are the most precious possessions that any individual can have. We look to the high schools of tomorrow to feed into American life each year larger numbers of young men and women who along with a capacity for social adjustment and conformity will still have rich personal individual lives. Character education in the last analysis is a personal and individual achievement."—Joseph Rosier, president, Fairmont State Teachers College, Fairmont, West Virginia.

"Teaching technique will be developed to further much greater individualization of instruction but better teaching techniques alone cannot win the battle. Courageous administration and intelligent and creative supervision are necessary that good teaching may become effective and universal."—Lucy L. W. Wilson, principal, South Philadelphia High School, Philadelphia, Pennsylvania.

"The ordinary methods of articulation are to

provide skillful placement guidance and to carefully dovetail subjects. These methods will never produce any appreciable improvement in articulation. The real difficulty lies in disagreement concerning the aims and functions of education and a lack of understanding of the necessity for adjustment to the needs of the growing child.

"Articulation is impossible when the teachers of the two levels hold conflicting philosophies of education. Neither can articulation be achieved by the establishment of logically dovetailed institutions to which the pupil must be fitted. A school procedure that interrupts the continuity of one child's growth and thus becomes an inarticulation for him becomes to some other child a challenge that he accepts and uses as a stepping-stone to perhaps the greatest single period of growth in his entire school career. Articulation can be achieved better by harmonizing the teachers' philosophies of education, by increasing their knowledge of children's needs, and by making schools flexible enough to adjust to those needs."—John H. Bosshart, Superintendent of Schools, South Orange, New Jersey.

In speaking of the problems in secondary education with which the Department has to deal, President Ernest D. Lewis said, "To solve some of those problems will demand the best thought of the men and women in the high schools in the United States, and is an outstanding argument for a national organization such as the Department of Secondary Education, and for the call I am now making for an aggressive body of high-school teachers to cooperate wholeheartedly in the work ahead."

NEW HISTORY PROGRAM

Educational authorities, led by Levering Tyson, director of the National Advisory Council on Radio in Education, are interested in the new "Great Moments in History" program, designed to be informative as well as entertaining, which was launched on a coast-to-coast WJZ-NBC network, Sunday, October 2, at 7.30 p.m. (EST). It will be heard each Sunday night at that hour.

The series of historical radio dramas is being prepared by a specialist in this form of entertainment and checked for fidelity to the facts by Professor John A. Krout of Columbia University, chairman of the history division of the National Advisory Council on Radio in Education.

BOOK NOTES

MILDRED BATCHELDER

This is an anniversary month. Louisa May Alcott was born on November 29, 1832. It was 1868 before *Little Women* was published but, even so, that fine story has had opportunity to observe many a fall parade of new books for children. Many books begin their career bravely but their characters are not equal to the demands placed upon them. It is a small number each year which joins the *Little Women* group and returns for future holiday seasons. What will *Little Women* say to the books which will stand beside it before Christmas this year? It will surely comment on the attractive appearance of the children's books and upon the illustrated editions of old favorites.

Perhaps it will notice *Katrinka Grows Up* (Dutton) by Helen Haskell and will remember that sixteen years ago there appeared the first book about Katrinka telling of her unhappy life after her mother and father were taken to Siberia. Finally she became a dancer and at last a member of the imperial ballet. It was an excellent story and even after all these years it keeps *Little Women* company. The new book continues the tale of Katrinka up through the Russian Revolution. This time it is a story for older girls, one which will give some understanding of Russia's turmoil and uncertainty without including the horrible nightmarish tales which fill adult books about this period.

Then there will be Helen Coale Crew's new story, *The Shawl with the Silver Bells* (Macmillan) which will be popular for a while. It is a story of a Spanish gypsy band wandering in England, and particularly of Meg, one of the band, who feels sure she is not a gypsy-born and is finally able to

assure herself of that and find her home. There is a fine old matriarch who rules the band, completely unscrupulous but with her own much revered gypsy code.

Surely *Magic Portholes* (Macmillan) by Helen Follett will attract attention. Barbara, Mrs. Follett's daughter, has sea fever of the worst sort and it appears to be contagious. Barbara has told of one sea trip in her *Voyage of the Norman D* (Knopf, 1928), but this time her mother is the story-teller and records a long journey packed with all sorts of small adventures until finally they succeeded in sailing on a glorious old five-master. The Folletts seem to know how to enjoy thoroughly the things they do.

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BOOK REVIEWS

The Democratic Philosophy of Education (companion to Dewey's *Democracy and Education*), by HERMAN HARRELL HORNE. New York: The Macmillan Company, 1932, xxiii+547 pages, \$2.50.

This book is a companion volume to *Democracy and Education* by Dr. John Dewey. This companion book has the same number of chapters, identical chapter headings, and identical sub-headings in each chapter, with the exception of the omission of the "summary" at the end of each chapter, which Dewey had in his *Democracy and Education*. The aims of the book, as expressed in the preface by the author, are:

"The first is that an expository analysis of the main points in the argument is very welcome to the average student.

"The second is that a contrasting point of view, showing a different type of philosophy from your own, is likewise a stimulus to students in formulating their own viewpoints." (Preface, vii)

Doubtless students in this field know that Dewey is the outstanding pragmatist, as related to educational methods. Horne, who is an idealist, feels that the "philosophy of experimentation alone is one-sided, overemphasizing method and underestimating content." (Preface xiv)

The discussion under each subhead or topic is in two parts. First, he gives a simplified exposition (his interpretation) of what Dewey means. Often the exposition is much briefer and more to the point than the original. The reviewer concedes that Horne's textbook style is easier reading for a student than Dewey's, yet it seems very probable one would miss much if he were reading for comprehensive understanding if he failed to read the original. Dewey's own book seems to be more thought-provoking than Horne's expositions. These expositions serve their purpose in that they are easier for students (one is tempted to say "lower-level" students) to read and master than those of the original.

Second, he gives a discussion under the title "comment." Under comment, the author marshals his idealistic ideas and shows just wherein idealism differs from pragmatism. He also shows why it is necessary for one to include in his philosophy of life something more than the pragmatist advocates. Under comment he also includes an explanation of terms, words, et cetera, peculiar to Dewey. These remarks are quite illuminating and offer a "short route" to an interpretation of the original.

The volume will doubtless be a valuable text

when used in an undergraduate course. It will also be useful for one who wishes a simplified version of Dewey's *Democracy and Education*, with extended comments, by an advocate of idealism.

C. M. BENNETT

Diagnostic and Remedial Teaching, by LEO J. BRUECKNER and ERNEST O. MELBY. Boston: Houghton Mifflin Company 1931, xviii+598 pages, \$2.75.

Educational maladjustments may be found both in the school institution, which remains too often a Procrustean bed, and in the inability of pupils to adjust to scholastic regimen instrumentalities and standards. The authors of this volume have concerned themselves chiefly with this second aspect of maladjustment.

Within this limitation the volume deals with individual needs of elementary-school pupils most adequately. The authors first set forth the nature and function of standardized tests, the aspects of intellectual processes to be measured, and the techniques of educational diagnosis. They then explain, in successive chapters, diagnostic and remedial teaching in arithmetic, reading, language, spelling, handwriting, social studies, character education, and health education. P.W.L.C.

The Clearing House

announces the following tentative topics for coming issues:

- January ('33) Educational Bunk.
A. D. WHITMAN, *Chairman*.
- February ('33) The Junior High School,
An Evaluation. H. H. VAN
COTT, *Chairman*.
- March ('33) Expansive General Courses.
JOHN R. CLARK, *Chairman*.
- April ('33) The High School in the
Depression.
FRANCIS T. SPAULDING,
Chairman.
- May ('33) Education for Leisure.
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